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This conference report contains 29 papers dealing with trends in financing public education. The papers are grouped by major subject into (1) the economic, social, and political issues in education and school support, (2) the foundation plan of school support, (3) the development of measures of State and local government ability to support schools, (4) the size and structure of school systems and the size-cost relationship, (5) the improvement of the property tax, (6) the decision making process in school finance, (7) the tools of decision making, (8) the development of cooperative efforts to solve metropolitan problems, and (9) the financing of capital outlay and capital outlay needs. (TT)

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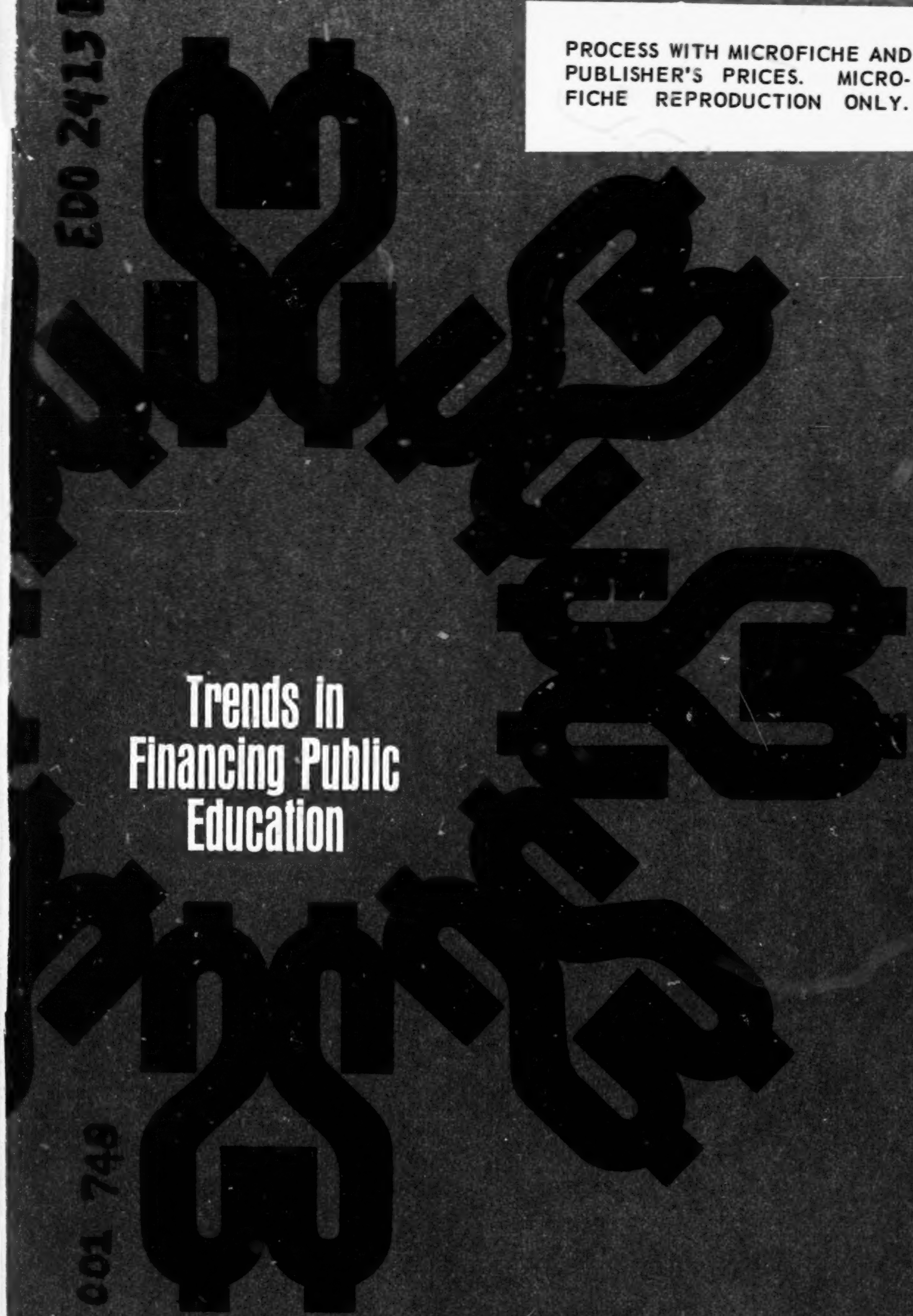

Trends in Financing Public Education

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The Proceedings of the
Eighth National Conference on School Finance
April 4-7, 1965 • Chicago, Illinois

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Trends in Financing Public Education

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Foreword

THE EIGHTH National Conference on School Finance sponsored by the NEA Committee on Educational Finance was the forum for the discussion of a wide range of issues and problems underlying the financing of public schools today and the techniques developed for their solution. The Committee is privileged to make the proceedings of the conference available to assist students and practitioners in school finance. The viewpoints expressed in the papers which comprise the proceedings are those of the individual authors and do not necessarily reflect the views of the National Education Association or of the Committee on Educational Finance.

The papers are grouped by major subject: 1 the broad economic, social and political issues in education and in school support; 2 the foundation plan of school support; 3 the development of measures of ability of state and local governments to support schools; 4 the size and structure of school systems and the size-cost relationship; 5 the improvement of the property tax; 6 the decision-making process in school finance; 7 the tools of decision-making; 8 the development of co-operative efforts to solve metropolitan problems; 9 and the financing of capital outlay and capital outlay needs.

This year almost 200 leaders in public-school finance attended the conference. The participants included university professors and students of school administration and finance, representatives of state education associations, state departments of education, and the U.S. Office of Education.

The Committee expresses its appreciation to the speakers for the high quality of the papers presented and to participants for the many helpful comments and suggestions concerning the program of the conference.

This conference was organized and conducted under the guidance of Erick L. Lindman who was a member of the Committee from 1959 to 1965 and chairman since 1961. The Committee also takes this opportunity to express its great appreciation to Dr. Lindman for the high quality of his leadership and his great contribution to the work of the Committee.

The Committee also wishes to acknowledge the support these conferences have received over the years from Frank W. Hubbard, NEA Assistant Executive Secretary for Information Services, and Sam M. Lambert, NEA Director of Research and the staff contact for the Committee.

Appreciation is also extended to the NEA Staff members who organized the conference and prepared these proceedings for publication: Jean M. Flanigan, Assistant Director of the Research Division and Secretary to the Committee; Beatrice Crump Lee, Publications Editor of the Research Division and the Committee on Educational Finance; Gwendolyn Wintrode, Secretary, Valdeane Rice, Administrative Assistant, and Wally Anne Sliter, Chief of the Typing-Production Section.

Burley V. Bechdolt, Chairman
NEA Commmittee on Educational
Finance, 1965-66

Greetings from the NEA

Frank W. Hubbard, Assistant Executive Secretary for Information Services

IT IS A PLEASURE and a privilege to welcome you to this Eighth Annual Conference on School Finance in the name of the National Education Association and the Committee on Educational Finance.

Some of us never expected that the number of conferences would ever reach eight. Guiding the Committee's budget each year through the complexities of the NEA budget made us very cautious in predicting the number of conferences that the years would bring.

Because of our uncertainties, we were delighted when Bob Wyatt, last year's NEA President, compared the proceedings of these conferences with the famous report of the Committee of Ten and the more recent reports of the Educational Policies Commission. It is true, as Bob said, the bringing together of leaders in some phase of education to deal with significant problems has been one of the most productive phases of the NEA's work.

But merely to produce reports has never been the limit of the NEA's effort. The history of American education shows that truly significant studies and reports have served as spark plugs which ignited local and state effort.

I have been told that over the gateway of a major western university there is a motto. I can recall only the gist of it as follows: "They only are truly educated who, from this place departing, bear their added gifts in service to their fellow men." We might very well paraphrase that motto so as to apply it to many NEA reports and to the work of this conference. We can justify these meetings only if they produce improvements in state and local finance laws and practices.

We are sure that past conferences have produced results. Many participants have written saying that these conferences have helped them do their own particular jobs better. Since participants are all key persons, the improvement of their knowledge, interests, and goals is a significant step forward.

Some participants have reported in more detailed and practical terms. They have told us of similar finance conferences held in their own states; they have reported on research studies inspired by these conferences; they have sent us evidence of new and better finance laws; and a few have reported large sums of money made available for instruction and salaries because of the ideas picked up in these annual conferences. Thus, indeed, have the values and products of these conferences been made to serve the forward progress of education.

As we examine the history of America and of American education, we are often struck by "the power of a good idea." When a "good idea" becomes the possession and the obsession of leaders, such as you here assembled, then something worth while is bound to happen. Library shelves are filled with books containing good ideas. Perhaps someday we shall discover that space itself is filled with blooming, buzzing ideas. But we need perhaps to remind ourselves that good ideas must be captured by the minds of men—and put to work.

And in putting to work these good ideas about finance let's not be too exclusive. You participants in these meetings are technicians and experts. As you go along with your work, take a little time to teach the classroom teachers, principals, and others who are less expert in matters of taxation and finance. Let us remember that one reason we have this Committee on Educational Finance is that 30 years ago the Department of Classroom Teachers asked the NEA to eliminate "the economic illiteracy" among teachers. Part of the assignment of our Committee is to interpret finance ideas to our members and to the general public.

Because of the leadership of this Committee in its planning and allotment of funds we are set to hold another major conference. As in the past we are indebted to Sam Lambert and the NEA Research Division for many hours of work upon the details of administration and operation.

Therefore, nothing more needs to be said other than "good luck and best wishes" in your deliberations.

PART ONE

Economic and Political Issues

The Economic and Fiscal Outlook

Walter W. Heller

THE REVENUE ACT of 1964, which cut taxes on this year's incomes by $14 billion, has greatly strengthened the financial underpinnings of education:

Tangibly, by generating more income, more sales, more jobs, more profits, i.e., by strengthening the state-local tax base

Intangibly, by gaining acceptance for modern economic ideas on the national policy scene, i.e., by strengthening the policy base for future economic expansion.

To assess this new economic setting for school finance—its background, its characteristics, and its significance—is the purpose of these remarks. Let me begin by reviewing the great economic expansion of 1961-1965 which is both the product and the agent of economic change. No previous peacetime expansion can match it for length, strength, balance, and policy innovation.

Length, Strength, and Balance

Length—We are in the fiftieth month of expansion. This ties the peacetime record set by the 1933-1937 expansion (which ended with 14 percent unemployment, hardly in the same category). It nearly doubles the 26-month average of modern peacetime expansions.

Strength—Right now, the economy is pouring out goods and services at the rate of nearly $650 billion a year. This is an enormous $150 billion advance since the first quarter of 1961. Even in stable prices the advance is about $120 billion in four years, from the first quarter of 1961 to the first quarter of 1965.

By way of comparison, one has to go back eight years to match the advance of those four years in stable dollars. In other words, in the past four years the output of this economy has increased as much as in the preceding eight. But the first quarter of 1961 was the trough of a recession. Measuring, instead, from the business cycle peak in the second quarter of 1960, we get a 1960-1965 annual growth of the economy from its 1953 peak to the 1960 peak.

Balance—The expansion is remarkable for its balance, for its more or less simultaneous advance toward all our major goals. It has not fallen prey to what one might call one-dimensional economics, the sacrifice of all other goals, let us say, on the altar of price stability, or the pursuit of domestic full employment and growth goals while disregarding the balance-of-payments problem. A hallmark of policy in this expansion has been the search, in good part successful, for economic measures which would reinforce rather than con-

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Dr. Heller is Professor of Economics, University of Minnesota, and is a consultant to the Executive Office of the President. Dr. Heller was Chairman of the Council of Economic Advisers from January 29, 1961, to November 15, 1964.

flict with each other in the pursuit of our multiple goals.

Goals of Economic Policy

Our economic Magna Carta is the Employment Act of 1964, which directs the government within the framework of free enterprise to use all its resources to achieve "maximum employment, production and purchasing power." The emphasis is on employment because of the vivid memories and great fear of mass unemployment as we emerged from World War II. But every President and every chairman of the Council of Economic Advisers has, by "judicious interpretation," interpreted the Act as calling for faster economic growth, price stability, and equilibrium in our balance of payments side-by-side with full employment of our human and physical resources, all within a setting of freedom of choice, and economic and growing equality of opportunity. There in a nutshell is the key to this nation's economic policy goals.

Where do we stand today in our drive toward these goals?

Full employment and full production —Unemployment has been whittled down from 7 percent of the labor force to 4.7 percent. Because of the rapid growth of the labor force, that has required the creation of more than 5,000,000 new, nonfarm jobs, and 1,650,000 of these have been created in the year since the tax cut. Modern fiscal policy is doing exactly what those who cried havoc about the tax cut said it could not do, namely, absorb large numbers of the unemployed by boosting total demand. We were told that automation was creating a slag pile of unemployables, square pegs who would not fit the round holes created by advancing technology. Tax cuts would simply run off into inflation, not new jobs and more production.

What are the facts? First, the new thrust provided by the tax cut brought year-end unemployment exactly to the 5 percent mark forecast in January 1964, and reduced it further since then. Second, and even more to the point, while total employment was rising 2 percent over the past year, the employment of teen-agers rose 4 percent, and of the unskilled, 11 percent. The fears that automation and technology would negate the tax cut and lead to inflation-creating manpower bottlenecks proved groundless.

This by no means suggests that our unemployment problem is solved. A total of 3½ million unemployed is far too many. And 1.4 million net new entrants are pouring into the labor force each year. Job creation is still a major task of economic policy.

And jobs alone are not enough to solve another grievous problem, that of poverty. In 1962, 70 percent of the poor families in the country (those having less than $3,000 of annual income) had at least one job holder, and 23 percent had two or more. Here, the cause of poverty is not the lack of jobs, but the lack of decent jobs, or correctly, the lack of the higher skills and productivity needed to yield a decent income.

Along with progress toward full employment has gone progress toward full production, though again, not yet enough. Average operating rates in manufacturing have moved up from 77 percent of capacity early in 1961 to 89 percent early in 1965, still short of the average rate of 92 percent preferred by producers themselves.

So we are not yet straining our capacities, either in manpower or in industry, to the point where we need fear that the stimulus of 1965 excise tax cuts will run off into inflation. Indeed, further stimulus will be welcome later in 1965 and early in 1966.

Faster growth—We are now growing, as I have noted, at roughly twice the pace of the preceding period—and mighty outputs out of these little ratios grow. If we had expanded throughout the 1960's at 2¼ percent, our 1970 Gross National Product would have been $660 billion. At the 4¼ percent pace, we expect *that* GNP for 1965, and over $800 billion by 1970!

Price stability—In reference to the third of our goals, no other industrial country in the world can match our record price stability in the past few years. The wholesale price index is exactly where it was six years ago, five years ago, three years ago, and just a shade above one year ago. The consumer price index has been edging up at about 1.2 percent a year—1.1 percent in the year following the tax cut. There are critics of the consumer price index, both conservative and liberal, who say that the increasing quality of goods and services actually offsets this small increase in prices and that we have had not only relative but also absolute price-level stability.

Our record of price stability has been enormously important, not just in terms of equity on the home front, but also in terms of the impact on our balance of payments. In large part as a result of holding costs and prices steady—actually unit costs in manufacturing dropped a trifle in these four years—we have increased our exports about 25 percent since 1960.

Balance-of-payments—That brings me to our fourth goal, namely, restored confidence in the dollar, or the search for balance-of-payments equilibrium. To date, our progress on this front has not been satisfactory. It is true that we have cut the balance-of-payments deficit from $4.2 billion back in 1958 (that is, our total outpayments to foreigners then were $4.2 billion more than their total inpayments to us) to $3 billion in 1964. Meanwhile, the world's economy, and ours, were growing much larger—so that is some progress, but not enough.

The basic nature of our balance-of-payments problem today may be described as one of "liquidity versus solvency," or one of a strong balance sheet versus a slippage in our current ratio. We have an enormously strong asset position. The United States has $88 billion of assets overseas and has only $57 billion of liabilities. Or, taking private assets alone, our claims against foreigners are $15 billion greater than theirs against us, and that margin is continually growing. So, the problem is not one of solvency.

The fact that we have been running balance-of-payments deficits for seven consecutive years is putting volatile dollars into the hands of foreigners. They were happy to have those dollars for the first 10 or 12 years after the close of the war, because there was a world dollar shortage. But now they are less willing to hold American dollars than they were.

To meet their potential claims, we have $15 billion of gold reserves, the largest supply of gold in the world; in fact, over one-third of the free world's supply. And in spite of fears that the foreign earners of our dollars may suddenly cash in their dollars, they have been holding a large part of their new dollar accretions in U.S. deposits and short-term dollar instruments; indeed, if we subtracted these holdings from the U.S. balance-of-payments deficit (as European countries do in comparable circumstances), the reported 1964 payments deficit of $3 billion would be cut in half. The pattern would then show our deficit shrinking from $3.3 billion two years ago, to $2.3 billion in 1963, to $1.5 billion last year. But we have been harder taskmasters on ourselves as the great reserve currency country of the world and have been holding our feet closer to the fire by a broader concept of the deficit.

We certainly do not have the traditional balance-of-payments deficit problem. When President de Gaulle takes us to task, I think he forgets that our problem is not at all the classic one of inflation and an adverse trade balance. Instead, it is a case of a mature and prosperous country recognizing its responsibilities in the world—responsibilities for defense, responsibilities for aid, responsibilities for private investment abroad which go along with being the world's richest country.

Following up that point, let me make clear, first, that the source of our external payments deficit today is certainly not the trade situation. Last year, we had the largest trade surplus in American history and in world history—$8 billion of exports over imports, and even if you take out the ones financed by aid, about $4 billion.

Secondly, the direct dollar drain of the foreign aid program has been cut to $475 million a year, less than one-seventh of the $3½ billion foreign aid appropriation. Why? All the rest of it is spent here in this country on American goods and services.

And thirdly, our military expenditures overseas have been cut by a billion dollars in the past four years without really cutting our defense strength.

The balance-of-payments problem in the past couple of years, then, can be traced primarily to the outflow of bank loans and direct investment overseas. Last year, we sent nearly $6½ billion abroad in this form and reinvested $1½ billion or so of retained earnings abroad. This is why the President's program this year was aimed specifically at slowing down this outflow, at bringing our balance of payments back into equilibrium through the voluntary cooperation of American business with American government in what is certainly a new and constructive partnership. In many ways this is a critically important test of that new partnership, one that will tell us a lot about whether it is truly a two-way street.

This lengthy treatment of the external payments problem is called for here, not because it bears *directly* on school finances but because, *indirectly,* it could hit you hard if we fail to solve the problem, for if we then tighten money and deflate the domestic economy to meet the balance-of-payments problem, it could have the most serious repercussions on the economy and, hence, on the state and local revenues which are the backbone of school finance, not to mention the painful impact of higher interest costs on your building programs. So, we cannot ignore this problem. It is constantly looking over our shoulder.

Moderation in Expansion

This expansion, remarkable for its length, strength, and balance, is also remarkable for its moderation. Private business, in particular, has not indulged in costly speculation, but has held inventories and costs in check, and by and large, has exercised self-restraint in wages and prices. So in the 1961-1965 expansion, we do not find the distortions and excesses typical of previous economic upswings. This greatly improves the prospect of its sustainability.

In a sense, by reviewing the record of today, I have already been discussing the outlook for tomorrow. In economics, reversing Shakespeare for the moment, past events cast their shadows ahead. In the three recessions from 1953 to 1960 there was always the shadow of one of several things hanging over the economy: excess inventories, or continuing inflation, or a wage-price spiral, or tight money, or sharp cutbacks in government procurement, or a tax system that was gradually tightening its grip on the economy and keeping it from achieving its full potential. At the present time, our economic landscape is essentially free of these shadows. Instead, the tax cut, in particular, has brought youth and zest to a lengthy expansion without sowing the wild oats of inflation.

Although we are dealing here primarily in the forces that shape the longer-term outlook, a comment on the forecast for 1965 made by the President and his Council of Economic Advisers may be of some interest. In January they predicted a $660 billion Gross National Product for 1965. The developments in the first quarter of this year have been favorable enough so that the forecast looks sound even with some slackening of the rate of advance in the remainder of the year.

Innovations in Economic Policy

The fifth remarkable aspect of the expansion is the innovation in economic policy. Part of this is in the private sector where modern management and computers are writing a new chapter in the history of inventory control, and plant and equipment programing. Far more dramatic are the innovations in public policy where the economic thought that has been taught in our classroom for 20 years—and is accepted as orthodox by 85 to 90 percent of the nation's economists—has now been pressed into public service, has now moved up to the firing line of public policy. I sometimes have felt that my four years as Presidential Economic Adviser were a war to make Washington safe for economists; it may be no accolade to be called an economist in Washington today, but at least it's not so embarrassing anymore!

Two Presidents became convinced that it is easier to keep an expansion going than to reverse a downswing. The trigger for policy action—tax cuts and the like—is no longer an expected or actual economic recession. The trigger, instead, is the economic gap between what we *are* producing and what we *could* produce. In other words, when our economic *performance* lags behind our economic *potential,* fiscal and monetary stimulus becomes appropriate.

This great American economy is so powerful, it is growing so fast, that even a $25 billion advance in Gross National Product per year is nothing to shout about. It is not enough to absorb the new human and material resources that become available to the economy each year, let alone absorb today's unemployed. Only when we achieve $35 to $40 billion advances (e.g., the $50 billion advance in the year since the tax cut) can we feel we are up to par.

Not only has the trigger for action changed, but the constraints have changed. I think that a deficit is no longer the constraint it used to be. We have had six consecutive years of budget deficits and six consecutive years of price stability. I do not think this lesson has been lost on people. This is a truly remarkable shift in emphasis, one that Sylvia Porter recently referred to as "nothing less than a revolution in economic thinking in our country in a matter of months."

In achieving or trying to catch up to the economy's potential, the tax cut has been the centerpiece of the new economic policy. Certainly, the tax cut is the measure that gave the new look in economic policy its sheen and lustre and perhaps its acceptance in polite society. It is fair to say that the tax cut has not only lifted the Gross National Product and personal income and profits and employment, but—perhaps even more significantly for the long run—it has also lifted national economic policy out of the morass of misunderstanding and fear that was blunting our economic policy tools and retarding our economic progress.

Three Elements of Policy

Now, we should not be so dazzled by that tax cut that we lose sight of the broad policy and strategy of which it is a part, and of the other policy instruments that are essential to a balanced advance toward our multiple goals. In considering how, in short compass, one can most readily characterize this policy, I think it might be useful to look at it in terms of three major ingredients.

One ingredient is the stimulus of aggregate demand, through tax cuts, budget increases, and expansionary monetary policy.

The second is the stimulus to productivity, to growth, to innovation through special incentives to investment, research and development, and education.

The third is the part that builds a bridge between the growth of jobs generated by rising demand and the human fallout, so to speak, from rising productivity. As increased productivity and automation displace persons, these persons have to be retrained, and the new entrants into the labor force have to be adjusted to the new demands. This, then, is the bridge between policy for rising productivity of both men and machines and policy for rising aggregate demand. Of course, the education industry is the central bridge builder in this process. Let us look at the other two parts in more detail.

Aggregate demand—Modern economics puts central emphasis on the stimulus (or, in inflationary periods, the dampening) of total demand, both consumer and investment demand, to levels that will make full use of the economy's potential, and no more. In trying to match over-all demand with over-all supply capabilities, we should concentrate less on the cyclical ups and downs that have occurred in the economy over past years and look at the broad flows, the long swings. Looking at it that way gives us a useful perspective on the future economic setting in which we will be operating.

In the postwar period we had a long swing until 1957 when private demand was strong; we were making up for a lot of lost time in depression and war, and we were working off our backlog of purchasing power. From 1957 on, we have been in what might be described as a trough in private demand, and public policy has come along to help fill that trough in the period from 1957 to perhaps when? 1968? 1969? 1970?

What I am probing for here is the date when we should be back on a stronger level of private demand, one that will help generate budget surpluses in a fully employed economy. And that means trying to predict when we convert our postwar baby boom into a private economic boom, i.e., when they become consumers of durable goods on a large scale and thereby become an independent, strong force in moving the economy up.

Meanwhile, to assure that the postwar babies will, in fact, become active *consumers,* we have to make sure that they become active *producers* and that we generate enough economic expansion to provide good jobs and incomes for them.

Greater investment in brainpower—The work done in the human investment area by Harold Groves, Ted Schultz, and others has brought home the fact that the expenditures for education pay a rich return, and that those expenditures for education can be justified not simply as consumption, but as a productive investment.

We tend to think this is something we have just discovered in the postwar period. It is true that since the war, research in this area is an advance on anything ever done before. But the first and surely the most heroic estimate of the money value of a human being to society was made nearly 300 years ago by Sir William Petty. In 1687, Petty estimated that a resident of England was worth a solid 90£, but an Irishman was worth only 70£. Petty then used this calculation to prove the desirability of transplanting the sturdy Irish laborer onto the fertile British soil! In 1862, J. T. Rogers who might have been writing for today, argued that it is unphilosophical to ignore capital in the person of a laborer and to recognize it in a machine. The thoughts that guide efforts in this field are not new.

What *is* new is the weaving of the human being and the investment in his brain power into the theory, practice, and policy of economic growth. Studies of growth show that increases in the *quantities* of labor and capital do not account for more than half of the growth of U.S. output in this century. At the forefront of this residual third factor in growth is improvement in the *quality* of labor resources. Edward Denison has estimated that 42 percent of the increase in output of workers between 1929 and 1957 was the result of education, and 36 percent was accounted for by the advance in knowledge of how to combine resources to achieve greater efficiency in production. So education is the producer of the trained and imaginative persons who are skilled and adaptable to the changing requirements of a dynamic economy and the producer of scientific and research personnel upon whom rests so much of the prospects for long-run expansion of productivity. When we talk about investment, we are talking about a duality of investment, in the human being and in plant and equipment.

Greater investment in plant and equipment—Emphasis on investment in national economic policy of the 1960's is strongly reflected in the fact that a Democratic Administration began its tax actions in 1962 with an investment-stimulating tax program. Democratic policy of the past was typically oriented largely to the stimulus of consumption, and only indirectly to investment stimulus. Recognizing that we are in a changed world—in a world that demands faster growth, in a world that demands cost-cutting and price stability and demands more competitiveness in international markets—the Administration called for a reorientation of emphasis to greater investment stimulus. That is why President Kennedy's first tax measures in 1962 were aimed at investment stimulus, not over-all tax cuts. A $2½ billion cut in business tax liabilities was put into effect through the investment tax credit and liberalized depreciation.

The Tax Cut and Future Fiscal Dividends

The tax cut of last year provided added investment stimulus through a $2½ billion cut in corporate tax rates. The rest of last year's huge tax cut, totaling $14 billion in terms of 1965 income, was for individuals, thus maintaining the balance between the stimulus to consumer demand and the stimulus to investment.

The purpose was to remove the fiscal drag, the stultifying impact of automatically growing federal taxes which would have produced a budget surplus of $11 billion at full employment, i.e., would have drawn that much more out of the economy than the federal budget would have put back in (at 4 percent unemployment). This is the principle on which the tax cut was based.

Since 1949, the consumer in this economy has been consuming 92¢ to 94¢ and saving 6¢ to 8¢ out of his after-tax dollar, year in, year out, whether income went up or went down, whether taxes went up or went down. The steadiness of the consumer, more than any other single thing, allowed us to predict what the tax cut would do. And the consumer did not let us down. As a result, the January 1964 estimates of 1964 GNP at $623 billion, of unemployment dropping to 5 percent by the end of the year, of prices keeping a steady pace, have been almost precisely borne out.

We can take a lot of satisfaction in it, to be sure, but this is not a job to be done once and for all; it has to be done again, and again, and again, by tax cuts or other fiscal measures.

Last year's tax cut and this year's fiscal program of excise tax cuts and expenditure increases have largely removed the full-employment surplus. But next year, and the year after, and the year after that, it will again and again rear its ugly head in the form of a growing fiscal drag, or its lovely head in the form of recurring fiscal dividends. I refer here, of couse, to the automatic growth of federal revenues, not to such occasional jolts as the prospective rise of payroll taxes by $5 billion a year next January 1.

The crux of the matter is that, at existing federal tax rates, our normal economic growth of about 4 percent a year in real terms (about 5½ percent in current prices) currently generates automatic growth of over $6 billion a year in federal revenues. Existing tax rates would produce nearly $35 billion more in revenue in 1970 than they do today. Apart from the debt retirement that will become appropriate as demand again strains our productive resources, this huge growth will enable us to declare generous dividends in the form of

Support for vital new or expanded federal programs

Well-timed tax cuts

More generous transfers of funds to hard-pressed state and local governments

Perhaps even a helping hand to the social security system.

The choices we make will profoundly affect the future of our fiscal system.

Expenditures

I start with the basic assumption that added civilian expenditures will absorb perhaps half of the automatic increase in revenue, or somewhere between $15 and $20 billion of the $35 billion available to us between now and 1970. My figure is based partly on a projection of the past increases in civilian expenditures—outlays for purposes other than defense and space have risen by an average of about $2 billion annually since Korea. To this I add an allowance for the pick-up in tempo implicit in the programs for the Great Society. (It is worth noting that even with a $3 billion annual increase, or roughly 3 percent annually, federal expenditures would continue to decline as a percent of GNP, having already declined from 17.2 percent in fiscal year 1959 to 15.2 percent in fiscal year 1965 on a budget basis and 20.3 percent to 19.0 percent on a cash basis.)

But I will not take refuge in mere projections. The polluted air I breathe in many large cities, the polluted Lake Michigan and Puget Sound I used to swim in as a boy (here, I see the problem as one of effluents versus affluence), progressive urban decay, the blight of human poverty amidst plenty, the vanishing wilderness, the uneven struggle between beauty and ugliness in American life, the excessive incidence of illiteracy, crime, and delinquency—all these reach out for a larger share of that $6 billion-plus annual dividend, either by direct programs or by more generous transfers to state-local government.

But the matter goes beyond your value preferences and mine. It asks also whether our growth targets require that we put more of our savings into public investments, both in *intangible* investments in education, research, and development, and technological advance and such *tangible* investments as atomic energy, urban and regional development, conservation, and other public works.

Transfers to State-Local Government

Next, let me examine with you the claims of the state and local governments. Let me briefly plead their case—*your* case, as school financiers—and, in the process, pose a basic question about the future of our national fiscal system.

The essence of the case is a fiscal mismatch:

- The supply of readily available federal revenues is rising faster than the demands on the federal purse.
- The state-local situation is reversed—expenditure demands are rising faster than the readily available revenue supply.

Evidence? While federal outlays have been rising more slowly than GNP, state-local expenditures rose nearly 9 percent a year, nearly double the GNP rise from 1953 to 1963. They rose from $28 billion in 1953 to $65 billion in 1963. State spending alone rose from $12 billion to $28 billion. And no let-up is in sight:

- *Demography* burdens state-local budgets, not just by the 19 percent over-all population increase from 1953 to 1963, but the 40-percent rise in the 5 to 19 age group and the 29-percent rise in the over-65 group.
- *Mobility and urbanization* call for even *more* new schools, sewers, roads, parks.
- *Prosperity* generates demands for *better* schools, roads, mental hospitals faster than it generates new state-local revenues.
- *Price trends,* for example on construction and the services of teachers, have also worked against state-local budgets.

Joseph A. Pechman of Brookings has projected state-local expenditures at a possible $103 billion in 1970—a 7-percent growth rate—with receipts (including "normal" growth in federal grants) rising only to $88 billion. This would leave a $15 billion gap to be closed by new state-local tax boosts.

No doubt, state and local bodies can and will do more to tax themselves; e.g., states doubled the collections from their own sources between 1953 and 1963. But their handicaps are serious:

Limited jurisdiction, less-than-optimal administrative size, and constitutional barriers

Interstate competition, the fears of driving out or keeping out industry and wealth

Great disparities in economic and hence taxable capacity

Already heavy reliance on tax sources that are not very responsive to economic growth.

Yet, in the face of these barriers, the fact remains that many of the functions essential to a great, good, and growing society are carried out by state-local government: education, community development, mental and physical health, recreation, welfare—the list is not short.

On simple grounds, then, of redressing the fiscal balance there is much to be said for a more generous allotment of federal funds to the states and localities by methods "which will reinforce their independence while enlarging their capacity to serve their citizens."

But more than that, what kind of fiscal system do we want? One in which —to put it in extremes—we dismantle the progressive and comparatively equitable federal income taxes while we lean ever more heavily on regressive and comparatively inequitable state-local property, sales, and excise taxes? Or one in which we find some way of using the powerful federal income tax to support expenditures that otherwise would not be made, or would have to be financed from regressive tax sources?

Social Security Support

A similar question arises in relation to social security payroll taxes. How far should we go in further income tax cuts, side by side with payroll tax increases which bear most heavily on lower-income groups and on consumption and which increase employers' cost of providing jobs? I do not deny that if these taxes *have* to be paid to achieve protection against the vicissitudes of old age, unemployment, and ill health, they are indeed a good bargain for those who are protected.

But as leeway develops in the federal income tax, strengthening our system of income maintenance without correspondingly increasing payroll taxes deserves serious consideration as an alternative to deeper income tax cuts. In particular, a program to strengthen unemployment compensation by tapping the income tax as a revenue source, and at the same time, tightening unemployment standards to end abuses, has much to recommend it as a means of strengthening the economy and easing burdens on small incomes without boosting business costs.

Tax Cuts

We are paying roughly $17 billion less in income taxes on this year's income than we would have without the 1962 and 1964 tax measures, which cut both corporate and individual income taxes by nearly 20 percent. No such massive cuts are in the cards for the next five years. But even with generous provision for the "dividend claims" already reviewed, the $35 billion potential revenue growth by 1970 leaves room for tax reduction, not just this year's $2 billion or more of excise tax cuts, but further income and excise tax cuts in the future.

I need not dwell on the claims of the tax cutters of the future. They will take care of themselves. They will point out, and rightly so, that tax cuts will boost private demand, vitalize free markets and private incentives, provide added funds for private capital formation, and lubricate further tax reform. To this, I am moved to reply, "I know, I know. Yet as a teacher, I can only hope that the tax-cut lesson has been learned wisely, but not *too* well."

- The choices among the various forms of fiscal dividend won't be easy. Yet we must remember that
- Unless they are made one way or another, the potential dividends will disappear in economic slack and slower growth.

They are essentially pleasant choices, aimed not at the lesser evil but the greater good (to borrow a phrase).

Although they are, in part, economic choices because some deliver more stimulus than others, dollar-for-dollar, in achieving full employment and growth. In greater part, the proper mix depends on the country's social and political priorities rather than on its economic priorities.

Outlook for Education

Fiscally and economically, we now live in a different world, one which should be more comfortable for you in school finance and school administration.

Fiscally, we have the great opportunity, just referred to, to redress the balance between the federal government and state-local governments. The first talk I gave to this conference years ago was on this same subject, the enormous pressures on state-local governments, and the federal governments' responsibility in education. Indeed, the federal government cannot carry out its responsibilities for the general welfare, and its responsibilities under the Employment Act of 1946 for growth, for maximum employment, production, and purchasing power, without investing more in elementary and secondary education. And fiscally, something new has been added since I last met with you: The constant, continuing growth in federal revenues is outstripping the growth in federal spending. This fiscal leeway, combined with the reapportionment decision of the Supreme Court, confronts us with fundamental questions of federal-state fiscal relations and a fundamental opportunity to strengthen the financial base of state-local services in ways that will strengthen the states and their subdivisions as vital elements of our democratic system.

Economically, we face a more steadily expansionary future than we have ever had before in peacetime. I do not say that we can, in a single great leap forward, move from a recession-prone to a recession-proof economy. Neither our wisdom nor the state of the economic art (or science), nor our luck can yet be counted on as all that good. I, for one, am not ready to claim a recessionless new era. But we have the tools and the know-how to keep expansion going a very high proportion of the time—to make our economy recession-repellant—especially if we adopt measures to speed the Congressional tax-cutting process when recession threatens or hits, and to speed up the executive spending process as well.

When we ask ourselves, what did it take to have apt government policy and what did it take to have expansionary business policy in the past four years, pride has to be mixed with humility, for there is no sure-fire magic in economic science. Aptness in government economic policy is based not only on good facts, good analysis, and good timing, it requires also good judgment, good nerves, and good luck. And private policy for expansion is based on moderation in inventory, in costs, in wages and prices, and in finances, combined with a bold spirit in expansion and good management in the implementation of that expansion.

Now, just ask ourselves, are we going to have all of these elements all of the time? Or, should we prepare for a day when we might not have them all? We have a chance to sustain expansion, to do what some of the European countries have done for 15 years running, without a recession—we have the same *chance*. Even if we all work at it, there is no *certainty* that surprises and mistakes will not occasionally break the stride of expansion.

In concluding, let me remind you—and myself—that our greatly improved prospects for future economic prosperity and growth are, in a sense, only the beginning. Our far more basic job, as President Johnson has clearly reflected in his poverty, aid-to-education, beautification, and other Great Society programs, is to convert our material prosperity into a higher quality of life. It is not enough for a society to be large and efficient, it must also be great and good.

The New Coalition

Harold Taylor

WHEN THE SUBJECT of financing education is raised, it is usually considered to be a financial matter. In fact, it is only partly that, the part that has to do with money. The amount of money spent for education is a numerical way of saying how much it is valued in comparison with other things. The real subject of financing education is the infinitely complex process by which a society decides upon its goals and the resources it is willing to use to achieve them. In many ways it is a quite personal matter—a man in a local community has to decide, when he votes, what percentage of his own money he is willing to put into the education of his own and other people's children. In many other ways it is a political matter, a social matter, an expression of a social theory which assumes that ultimate control of the society should be in the hands of tune-calling citizens who are paying the piper.

There is no more dramatic expression of this fact than the major decisions of the Congress about education over these past 100 years. The Land-Grant Act of 1862 had to do with financing education, in this case higher education in the states. But it was a social and political decision of major size, transcending all other social decisions of that century, since it made possible the rapid and radical growth of a national system of higher education and research which, in turn, made possible the incredible productivity of our agriculture, industry, science, technology, and culture on which the strength of the society rests.

The vocational education act of 1917 (Smith-Hughes) was also a financial matter, but it came in answer to a drastic social need for a democratic educational system which could accommodate a new kind of curriculum. That act supplied the money to meet the need.

In 1945, another decision even more far-reaching was made by the Congress in passing the G. I. Bill, another financial matter, this time to support the education of millions of young men who would never have been able to receive a higher education, many of whom would not even have thought it possible. That Act changed the character of expectation among American youth; it changed the character of the American university.

The National Defense Education Act dealt with special segments of financial need in the public schools, and demonstrated dramatically what money can do when applied intelligently to crucial areas in the school curriculum.

Now in 1965, more than at any other time in this century, money is to be applied to educational problems in a

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way deliberately designed to create economic and social innovation—in bringing equality to the Negro, the poor, the underprivileged, the educationally disadvantaged—by acts of the Congress, in part because for the first time we have a high-school teacher as President of the United States.

Our attitude to money itself has shifted. We have learned to spend it. We have learned that it is foolish and dangerous not to. We have learned that when you invest your money in education, it generates its own returns beyond all the returns anyone could think of, since it supplies the self-generating forces for developing social change, economic prosperity, and intellectual advance. Mankind advances by the twin forces of the creative intellect and the moral imagination. Education is the means by which these forces are nourished and developed.

The difficulty is that our social thinking has not advanced as far as our economic and scientific thinking. We have accepted a relatively unsophisticated idea of what education is. It has been assumed, for example, that the social milieu into which each generation is to be inducted is a universal white American middle class and that each new inductee should be equipped with the social and intellectual skills which make for success in that milieu. We argue, continually and justifiably, that economic opportunity is based on educational opportunity. But as we make that argument, we assume that furnishing economic opportunity to those without it is the chief end of education and that residence in the middle-class environment of the suburbs serves as the ideal toward which each generation should move.

As a result, we make such distinctions as those between vocational and liberal education, although by this we mean usually that students who, for whatever reason, seem unable to do well in academic studies of various kinds, should be taught useful skills which will enable them to take jobs rather than to go on to higher education. The decisions about educational policy in these matters are made by local and state boards of education composed, for the most part, of middle-class citizens whose cultural and social values reflect their own social origin. Improvement in the quality of education is considered, therefore, to be improvement toward a standard represented by the academic high school. Success in education is measured by how many students from a given high school are able to go on to college and university.

This means that very seldom are the actual interests of the economically and socially disadvantaged represented by members of the disadvantaged groups themselves. In rural and small-town areas the school-board members, since they are from their own areas, do represent the rural and small-town population. But in this case representation from other parts of the culture is missing, and local decisions about tax money for education or about educational policy in curricular affairs are taken without the advantage of points of view other than those of the local population. For example, it is often assumed among those inexperienced in educational issues that children who have initiative and academic talent, whether they are rich or poor, will succeed in school, and that it is not a question of financial support of the school but a question of innate talent finding its own level in whatever school situation it exists.

To an extent, of course, this is true. But to a very small extent. Initiative and talent are themselves products of interaction among a bewildering complex of forces in the environment, and the possession of initiative is in itself an acquired skill. In the school the motivation of the child depends, in the last analysis, on the climate for learning which is created by teachers who are sensitive, informed, skilled, and understanding. To produce such teachers and to place them in the schools takes a great deal of money, and to get the money requires a great deal of political action.

Education has always been a major political issue. The difficulty is that too few citizens have realized how political it really is.

In the deepest sense, our entire economy and political structure depends on the educational system. Neither the economy nor the political system could work without it: the economy would not work because we would not have the brains and the manpower to run it; the political system would not work because the voters would not know whom or what to vote for.

But in a more immediate sense, education has become political. If the President of the United States sets as the goal of his Administration the development of a Great Society, the only way he can hope to achieve that goal is by the development of a Great Educational System. The fact that the President knows this, and that he also knows that in his heart nearly every voter who has a child wants more than anything else an education of high quality for that child, is what gives a tang of reality to the hope that at last we are going to get the financial support for the educational system this country deserves. We are now talking about practical politics. We are talking about the fact that senators, congressmen, mayors, governors, and state legislators *have* to pay attention to education if they want to get elected. The voters want education for their children. In the case of public officials who do not pay attention, there are now political means to make sure that they do.

I am speaking not so much of school boycotts, demonstrations, public rallies, sit-ins, marches, and the proliferating techniques of social protest. These are overt expressions of deep discontents which lie beneath the surface of American life. I mean the sophisticated, calculated, idealistic, and practical use of the organized will of American citizens, organized in a way in which all sectors of the American community can be represented in urging a common policy of support for education.

Look first at the conventional means we have taken in the past to present the case for education. We have left it first of all to the teachers and their organizations, putting the burden of special pleading on the shoulders of those whose primary duty is to teach, putting them into the position which would be occupied by clergymen if they had to go out to argue publicly for an increase in their own salaries. Then we have left it to the Parent-Teacher organizations which, although they represent the public interest, seem to many taxpayers to represent the special interests of those who are to gain most from an increase in support to the schools. Beyond that, we have left it to school-board associations and associations of educational administrators to rally support for public education.

In the past this has meant that the entire apparatus of support has been confined to one small corner of the electorate, and to a corner which has never had access to the political power available to those who occupy a major position in the economic and social structure. The arguments made by teacher associations and citizens committees on education have been a combination of two points, both of them moral. First, that we must support the schools because the lives of children are at stake. Second, that the future of a democratic society depends on the vitality and strength of the public schools. The rest of the arguments are extensions and variations of these main points.

On the other hand, in the politics of the organization society, those with economic and political power—business, industry, labor unions, the military services, the banks, farmers—do not make this kind of argument. They put themselves into the structure of economic and political forces at the point of greatest leverage. As Arthur Pearl has said, "There are more teachers and more counselors in this country than there are teamsters, and yet their influence on the political structure is considerably less."

The major argument of the power groups is that they have the power to damage or enhance the status of any legislator who works for or against their interests. There are secondary arguments—labor is essential to the democratic structure as a balance against business; corporations have the responsibility for national productivity and social welfare. But when legislation is involved, or the consent of the electorate is needed—the machinery of public, private, and legislative consent—engineering is cranked up and begins to move. Farmers are subsidized, so are textile manufacturers, oil-well owners, grain operators, housing project builders. The interests of power groups are taken into account because they have the power. They have direct access to legislators and they know how to organize.

It is interesting to note the alacrity with which congressmen have become interested in the computerized classroom the moment it was suggested as a solution to poverty by a major electrical company. It is equally interesting to note how very quickly this company and others like it suddenly became concerned about the welfare of children and of education, once the poverty bill was passed and it became clear that at last there was money around for public welfare.

None of this is news, of course; it is the normal mode of operation for a capitalist democracy. The Veblen analysis of how business institutions operate is still the basis for a continuing and necessary criticism of economic institutions of all kinds. The point is that without power equivalent in some measure to that of the special interest groups, institutions devoted to the public welfare are left high and dry when the money is handed out. Not only that, but unless the moral will of the people can find an organized way in which to counteract the force of special power groups intent on their own interests, there is no source of resistance to, or leadership for, the economic and political power of those with economic authority.

Looked at in this light, the efforts of citizens groups to gain support for public education have been politically naive all along. The parallel lies in the lack of political power of the Negro before he developed a militant economic and social strategy, before the coalition of new forces—the white poor, the professionals, the liberal middle class, the moderate Republicans, and, above all, the youth, both Negro and white—gave breadth and depth to the protest movement. Those who were quick to condemn the use of economic boycott, boycott of segregated schools, and public demonstrations for the reform of education found that no matter how much these methods were criticized, they turned out to be the only ones which were effective.

I am not suggesting the development of a strategy for the schools based on a continuous bombardment by direct action projects. I am suggesting that the future development of education in this country will depend on the formation of a new coalition of citizens based in the power structure which already controls the course of economic and social change.

The standard approach in the states has been to rely on three major organizations, the state education association, the state school-board association, and the state PTA for the major thrust on behalf of education, with additional citizens committees clustered around them and co-ordinating among them. This central core of organization is considered in the states, by the politicians and the public, as the professional establishment, which continually speaks on behalf of education, whose statements, therefore, are predictable, and whose battles are fought in the same terms, often with the same opponents, year after year. In saying this, I do not wish to appear churlish about the professional organizations. Without them, and without the state-wide organizations, especially the state education associations, with their public relations, research staffs, and political connections, there would be no central core of personnel or strategy, either in state affairs or in national organization.

A new strategy, made even more urgent by the activities of the federal government in financing education through the Poverty Program, the Civil Rights Bill and, when it passes, the new education bill, must consist of a coalition of citizens representative of the state's power structure, with labor, agriculture, business, banking, legislature, the professions, the universities, and the voluntary organizations all coming together with the existing education organizations to assert a common cause—the support of high-quality education in the public schools of every locality in the state.

As evidence of the rise in large-scale public interest in the role of the public schools I bring you word of the work of the National Committee for Support of the Public Schools whose chairman is that distinguished fighter in the cause of education, Mrs. Eugene Meyer, and whose Executive Committee includes such informed persons as General Omar Bradley, Senator William Benton, George Gallop, Governor Terry Sanford, John Hersey, James Patton, John Snyder, and Judge Mary Kohler. Throughout the country, nearly 1,000 members of the Committee are at work in their own states to find the ways in which public education can get the financial support it must have. These are citizens who serve on school boards, in state legislatures, or as governors, commissioners, and in community organizations, who are joining the teachers, administrators, businessmen, farmers, and trade unionists to organize political action in urging the cause of the public schools.

They represent no orthodoxy, they are Republicans and Democrats, rich and poor, men and women. Some of them work actively to elect candidates to local, state, and national offices who have declared themselves for the cause of education. Others, like Governor Sanford, have already held office, having run on a platform of support for public education and having made good on their campaign promises.

North Carolina has visibly improved the quality of its schools under Governor Sanford's leadership. His work there shows what can be done, on the one hand by citizens who organize political support for candidates who face the educational issue squarely, and on the other by political leaders who urge the expenditure of funds for support of public schools on every dimension of education. In North Carolina, within four years, millions in foundation grants and state funds have been spent to provide education for the gifted, for the retarded, for the culturally deprived, for the segregated, for all the state's children. As a result the economy has improved, the level of industrial production increased, and the people of the state are proud of their accomplishments and of the educational changes they and their leaders have brought about.

The over-all body of citizens groups for education in North Carolina goes under the title, The United Forces for Education, and includes the North Carolina State Grange, the state P.T.A., the Association of University Women, the state school boards, the Federation of Women's Clubs, and the state education association. The strategy here was to agree upon a set of common goals for both financial and educational advance, to prepare basic material presenting the goals and the reasons why they must be reached, and to carry on a state-wide campaign in co-operation with service organizations, interested legislators, newspapers, radio and television stations.

Once such a program of action begins, it generates its own momentum, since it attracts the support of groups other than those traditionally involved with educational issues, and the beginning of success in accomplishment breeds more support and more interest as it goes along. Although state financial support for public education in North Carolina has not increased markedly as yet, forces have been set in motion which make such increased support inevitable. The work of our National Committee has to do with stimulating and helping through new research and co-ordination of citizens groups of one state with another, the work of forming new coalitions of the kind illustrated in North Carolina.

We have concentrated on two simple and basic propositions: first, that each state can gain strength for its own schools by thinking of itself and organizing itself as part of a national, and not merely a local, enterprise; second, that by concentrating on action to get adequate financial support for the schools, all the other issues are raised in a context of political and economic reality—a high quality of teaching staff, a modern curriculum, equality of opportunity in each geographical area of the state, justice for minority groups. None of these democratic rights is available without drastically increased financial support, nor is it usually possible to raise the sights of state legislators and local citizens unless comparisons of quality are based on a knowledge of national standards of financial and intellectual achievement.

In other words, our National Committee has adopted a philosophy of community development. We use the best national brains we can find and a group of highly visible national citizens to help local citizens to help themselves in a kind of national cultural exchange program in what we think of as a highly underdeveloped country. By appealing to their sense of civic duty, we persuade intellectuals of the caliber of Kenneth Galbraith, Daniel Boorstin, Daniel Bell, Henry Steele Commager, Eli Ginsberg, Melvin Tumin, and others not usually associated with education associations to think, write, and talk about our problems and to join government leaders of the caliber of Hubert Humphrey, Willard Wirtz, Francis Keppel, newspaper and television men like Marquis Childs, Herbert Block, Howard K. Smith, Bill Mauldin, labor leaders like Walter Reuther and James Patton, business men like William Benton, Charles de Carlo, and we mix them all together with our Executive Committee, bring them into our national conferences, and then supply what ammunition and organization we can for the states' self-help programs.

For example, last year the officers of the Better Schools Committee of New Hampshire conferred with us about developing a new political coalition to advance the cause of education in that state. The New Hampshire Committee had considered a co-operative project with Governor John King for a one-day Governor's Conference on Education and, using some of our materials and past experience, organized the Conference, the invitations going from the Governor's office to a complete cross section of organizations in the state. The opening address was made by the National Committee Vice-Chairman on the role of education in economic and social change; the afternoon panel was manned by five representative citizens from labor, industry, agriculture, government, and education talking about the state's educational needs; Governor Sanford, of our Executive Committee, made a remarkable closing address describing the political and educational process by which North Carolina had achieved the results of the last four years. More than 1,000 delegates attended what was one of the most successful conferences the state has had in education; regional conferences of a similar kind are to follow.

The New York State Educational Conference Board has been in existence for 22 years, and with a combination of nine different organizations, deliberately patterned itself after the Agricultural Conference Board which worked so successfully for the farmers. The Board works out basic policies, produces the material to back them up, and speaks with one loud voice when there are financial and political matters to be dealt with in the state legislature. For those interested in the methods of the New York Board, Michael Usdan has written a fascinating account in the Institute of Administrative Research *Bulletin* of February 1964.

Massachusetts organized a similar board in 1961, as did Maryland 17 years ago. The Maryland state-wide Council on Education is by far the most wide-reaching in representation, with Chambers of Commerce, civic organizations, farm groups, service organizations, colleges, schools, universities, more than 90 different groups involved in a common program. Other states where coalition politics is beginning to be practiced include Colorado, Tennessee, Texas, and Minnesota.

Our National Committee work involves getting the information about what one state is doing into the hands of interested and willing people in other states. We do not have the manpower or the money to do the travelling we need to do, although we do press a lot of people into service before they know where they are, and the Vice-Chairman, who travels a good deal in connection with his teaching and lecturing, tries to stir up collaborative action in the states which he visits.

I provide the following maxims for those interested:

1. If you find a governor who really cares about education and wants to run on an education platform, he is your man. Build a program around

his platform, and keep his feet to the fire when he gets in.

2. Put your hands on the nearest set of citizens who are prominent in town or in the state and get them into the education movement, especially those who have not been in before and are relatively fresh and untouched.
3. Get to the radio, television, and newspaper people by way of the prominent and influential citizens whom you have persuaded into service, and if possible put the station owners and newspaper publishers on the state-wide committee.
4. Keep in touch with the national situation in order to compare what is happening in a given state with what is happening and can happen in other states.
5. Don't leave the policy for education in the hands of the professionals, the legislators, the state departments, or any single group. Use the state-wide coalition to raise policy questions affecting every sector of the life of the state—the Negro minority or any other minority, the farmers, the workers, the professionals, in the slums, the suburbs, the inner city.
6. Concentrate on getting the money. By justifying the necessity of the money, all the big questions about democracy and social progress will come flying out of the bushes as fast as the citizens can chase them.
7. Think always about the children, who they are, what they need, and what they may become.

An Economist Looks at Vocational Education

Alice M. Rivlin

ECONOMISTS HAVE only recently discovered general education. They have not yet discovered vocational education. It may strike you as amazing that economists did not begin thinking about education many decades, or even centuries ago; but I think the basic reasons are that they were lazy and the economy is very complicated.

One easy, and frequently effective, way to start on a complicated problem is to pretend that it is not really so complicated after all. For a long time economists tried to simplify the problem of economic growth by pretending that workers were all alike and that production was determined by the quantities of natural resources and physical capital goods and by the *number* of workers. Eventually it became clear that these simple models did not go far toward explaining economic growth. In fact, only a fraction of the dramatic increase in production experienced in most Western countries over recent years appeared to be attributable to increases in physical capital and numbers of workers. Clearly, workers were not all alike; the skill of the labor force mattered. Economists realized they had been missing an important part of investment, the investment in human capital which takes place when part of current production is devoted to training workers so that they will be more productive in the future.

So economists began examining human resources, measuring the educational investment in human capital and estimating the rate of return on that investment. The measurement problems were difficult, although no more difficult than the similar problems connected with measuring physical capital. Nevertheless, even rough answers seemed encouraging. Investment in human resources through education did seem to explain a significant portion of the hitherto unexplained growth in output, and the rate of return on this type of investment appeared to be high.

Simultaneously, economists became aware that education is a major industry which uses substantial resources. Regardless of what decisions are made —for economic or other reasons— about the types or the amounts of education students should receive, there will always be scope for using educational resources with more or less efficiency to achieve the chosen ends. Even when the desired results are known and can be measured—a given level of reading achievement for 30 six-year-olds, a certain typing speed for 100 high-school girls, a stated level of competence in French for 1,000 college freshmen—there are difficult choices to be made about resource use. There are alternative ways of combining teachers,

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tape recorders, television, instruction sessions, practice sessions, and so forth.

Economists can never tackle these problems alone. Educators and administrators have to do the testing and evaluating of educational effects of different methods. But, given the relevant information about costs and results, economists can help organize this information so as to clarify decisions about how to obtain the best results for a given cost or specified results at the lowest cost.

If it is amazing how recently economists have discovered general education, it is far more amazing that they have failed to focus on vocational education. There are clear reasons for resistance to economic reasoning about general education. Many of the benefits of general education are intangible and difficult to quantify. It seems likely that educated people are generally more law-abiding citizens, make more intelligent decisions at the polls, and are better able to enjoy the arts and to enrich the lives of their children than are uneducated people. Most people (especially educated people!) believe that the noneconomic benefits of education are large and would favor general education up to a certain point even if its economic benefits were negligible or, indeed, negative.

Vocational education, on the other hand, is frankly undertaken for economic reasons. It may have noneconomic side effects, but its primary purpose is to train people for work. One would expect the benefits of vocational education to be unusually susceptible to measurement in economic terms. Moreover, it is surprising that economists have not directed serious attention to evaluating vocational education either as a tool in combatting poverty and unemployment or as a device for accelerating growth.

What does an economist, however belatedly, see as the principal economic issues relating to vocational education? The issues are many, but they can be grouped under three questions:

1. How much vocational education or training should the labor force have?
2. Where should training for work occur?
3. How should the costs of training be shared among the worker, the employer, and the taxpayer?

The first question—how much training the labor force should have—cannot be answered in general terms. We can grab hold of this question only at the edges—at the margin, as economists say. It would not be very useful to know that workers in general were receiving too little training, since, even if we know this, we would still need to know which particular types of training most needed to be expanded. The only useful way to get at this general question is to break it into pieces and ask: Should a particular type of training be expanded or contracted?

If we can estimate the future earnings of persons who receive a particular type of vocational education, relative to persons with similar qualifications who did not receive the training, we are in a position to estimate a marginal rate of return on the cost of this type of vocational education. A high rate of return indicates that more people could profitably undertake this type of training and a low rate of return is a signal for retrenchment. This type of computation—estimating rates of return on vocational education costs—is tricky and should be used with great caution. There are at least three pitfalls which might make the numbers meaningless or even misleading.

First, available statistics on actual costs per student of existing training programs may not reflect the true costs of adding more students to efficiently run programs. The existing programs may, for example, be badly organized or too small to be efficient. A new program may have very high initial costs in the first year which should not be counted in an estimate of the rate of return to the program in future years.

Second, estimates of future income of the graduates of the program have to be based on the income and employment experience of past graduates as derived from surveys or follow-up studies. But the demand for specific skills or occupations may change radically in the future. Although projections of future manpower needs can be useful here, such projections are never highly reliable. The longer the time horizon and the more rapid the technological change, the less reliable manpower projections become. I suspect, although many of my colleagues might disagree, that unreliability in projections of specific manpower needs is one of the prices we must pay for technological change in a free-market economy and that fancier projection methods will not greatly improve the reliability of these projections, except, perhaps, in the very short run.

Finally, there may be hidden benefits to vocational education which are not reflected in the incomes of the graduates. Perhaps, if a high-school student were not in a vocational program, he might drop out of school altogether and his chances of becoming a delinquent might be increased. In general, computations of rate of return derived from income alone are more helpful in comparing differences in various types of programs than in comparing some vocational education with no education at all.

The second major question—where should training for work occur—is a serious issue for vocational education. On-the-job training in formal or informal apprenticeship programs, private vocational schools, and technical institutes all offer real alternatives to vocational education courses in public schools.

In the realm of general education any debate over the existence of public schools has an aura of fantasy and is not taken seriously by practical people. It is impossible to point to any country which has achieved a high level of literacy and general education without compulsory attendance laws and free public schools. One can, however, find industrial countries with high growth rates and low unemployment in which training for work is conducted almost entirely outside the public school system. Germany, for example, relies mainly on an elaborate system of apprenticeships and company training programs for students who have completed the required amount of general education in school.

In the United States we have considerable experience with alternative types of training for work. Vocational courses have been a regular part of secondary-school curricula for many years. Cooperative programs have been tried in some occupations and in some school systems. Formal apprenticeships and company training programs are usual in some occupations and less formal on-the-job training in others.

Yet, almost none of this experience has been analyzed with a view to assessing relative cost and effectiveness of alternative systems. At present, there is little basis for answering the question: What kinds of training are most efficiently done in schools, which on the job and which in cooperative programs? One can point only to some general considerations which enter into the choice between school courses and on-the-job training programs.

Where the training involves learning to operate expensive equipment, there are advantages to doing it on the job (or at least on the premises of a going commercial or industrial establishment). In general, it does not pay for schools to invest in locomotives, earth-moving machinery, big computers, and the like, especially since instructional equipment is generally in use only a few hours a day. Moreover, when the rate of technological change in an industry is high, there tend to be advantages to on-the-job training. Both teachers and equipment may be subject to rapid obsolescence, and a school may quickly find itself turning out students whose training is largely irrelevant to the work situations they will face.

Another obvious consideration is the ratio of manual skill to theory required in the occupation. Where theoretical knowledge or understanding of a process is crucial, there may be strong advantages to classroom instruction and to the use of equipment especially designed as training devices.

The efficiency with which a particular skill can be taught is certainly not the only consideration in choosing between classroom instruction and on-the-job training. For example, there are other arguments for vocational training in the schools. It may be desirable to integrate vocational and general education. Vocational courses may supply the potential dropout with motivation for staying in school and learning more than a specific job skill. It is easier in a school context to make the program flexible, to teach skills useful in several different occupations, and to give the student an opportunity to learn about and transfer into a different course or a different curriculum. It may be easier in a school context to make sure that opportunities are open to students from all backgrounds and that young people with special handicaps (including a background of poverty and poor previous education) get the help they need. Finally, school courses do not have to be tied to the needs of local industry. This may be especially important in a declining area where students need to be trained for jobs in other parts of the country.

Our third major question—how the cost of training for work should be shared among students (workers), employers, and taxpayers—seems at first glance to be closely related to the previous question. It would seem that if training takes place on the job, the employer pays; if it takes place in private schools, the student pays; and if it takes place in public schools, the taxpayer pays.

But the real situation is more complicated. Even in a free public school the student usually assumes part of the cost of his training. If he is beyond the age at which his attendance is compulsory and if he has a reasonable chance of finding a job without further training, he is paying a price for his training in the form of forgone earnings. Similarly, an apprentice or company trainee normally forgoes some income to obtain training which will pay off later. In accepting lower earnings in order to get training, the trainee is sharing in the cost of his training. And if a student is paying tuition to a private proprietary vocational school, his forgone earnings must also be added to the tuition to give a true picture of what his training is costing him.

Hence, the question is not really: Should the student pay anything? He always pays something. The question is: How much? I suspect we will hear the question asked with increasing frequency in the next few years, even with respect to vocational programs offered in public institutions, as emphasis shifts to technical education at the post-secondary level. This type of training is expensive, but the rewards to the student may be high. Students may be willing to pay substantial tuition for such training, especially if they can finance the cost by borrowing. Since the "free" tradition is not so strong at the post-secondary level, public as well as private institutions may decide to charge tuition in order to offer expensive technical education which the community may be unwilling to subsidize heavily.

In judging whether there should be public subsidies of vocational education, economists are inclined to ask first: What would happen without subsidies? Would there be underinvestment in vocational education or a maldistribution of the training obtained?

These questions have not been thoroughly explored, but there is certainly some reason to think private incentives are insufficient by themselves. Big companies with highly specialized equipment may have many reasons for engaging in elaborate training programs and clearly many of them do so. For the small company, store, or office, however, the cost of training employees can be prohibitive. The cost per trainee may be high when there are few of them, and the risk of losing trained employees to other enterprises may be great. The cost of training can be partially shifted to the trainees through lower wages, but minimum-wage laws and similar customs make full shifting impossible. In this situation private vocational schools may spring up to offer training which small companies cannot afford to give—private secretarial schools are a good example of this phenomenon. Workers have an incentive to pay (both in the form of tuition and forgone earnings) for training which will raise their future wages, but they may be unable or unwilling to do so. Young people with limited resources would have to borrow to finance this investment in their future. They are unlikely to be able to obtain a loan, and they may not want to risk indebtedness. Hence, they may fail to obtain training which would be in the national interest as well as in their own interest.

This economic rationale for subsidizing vocational education is not necessarily an argument for heavy reliance on vocational education courses of the type traditionally offered in public secondary schools. Where there are reasons to think on-the-job training or courses offered on a work site are more efficient, such training could be subsidized directly. There is room for a wide variety of combinations of school-and-job training programs. Imaginative experiments and objective evaluation of the results might lead us to effective new methods of training workers for future jobs.

Incentives may be a problem even in public-school programs when support is primarily local. A community may be quite willing to support training for jobs in local industry, but not for skills which are in demand elsewhere. When there is heavy outmigration from a community, local citizens may not want to tax themselves to train young people who will leave as soon as they are trained. Hence local support and local decision-making may lead to substantially less investment in training for work than would be undertaken if decisions were made by some larger unit. Here, of course, lies the rationale for state and federal support. Much of the motivation for federal efforts, from the Smith-Hughes Act of 1917 to the Vocational Education Act of 1963 has been to give states and localities more incentive to support vocational education thought to be in the national interest. The effort, we all know, has not been fully successful, but the greater flexibility of recent legislation and the new willingness of educators and administrators to experiment with novel arrangements and to evaluate their own programs give promise of more effective and imaginative solutions.

What Causes Salary Disputes

William P. McLure

TO ANALYZE the causes of salary disputes, we must examine the total environment of the public schools in our society. Four factors appear to account for much of the salary difficulties among professional staff members.

Educational purpose—the scope of the educational purpose is tremendous. It ranges from considerations of need for some formal education for children at much lower ages than traditionally conceived in kindergartens or even nursery schools, expanding knowledge about coping with individual differences in learning and development at all age levels, and as yet the undeveloped concept of adult education. The unsettled, dynamic nature of the purpose of public schools gives rise to changes in roles, status, perceptions, and attitudes which are closely associated with salaries.

Appropriate programs to meet the changing social conditions—We are familiar with the traditional organization of grades in the first six or seven years of school life of the child with a shift to subject or fields of instruction in the junior and senior high-school grades and in post-high-school institutions. This traditional pattern is being modified by special groupings to accommodate the instruction of pupils with various needs. In recent years there has been an increasing differentiation of nonteaching professional functions to augment instruction of the classroom teacher. Auxiliary services, such as transportation, food service, operation and maintenance of buildings and facilities, health and driver training, have expanded. Financial resources have not been increased sufficiently to avoid severe stresses and strains resulting from the growth of complexity in these programs.

Administrative units of operation—These units are commonly referred to as school systems or school districts. Some of the difficulties concerning salaries as well as other matters arise out of the incapacity of many administrative units to organize for effective performance of all members including students and staff.

Dynamic factors within school systems—By these I mean the things that are commonly referred to as decisions, aspirations of citizens, legal and social restrictions on expression of these aspirations, all of which result in an unrealistic scarcity of financial resources available to the school system.

These general factors suggest the broad context in which salary disputes arise. It will not be possible, of course, to develop all of these points fully, but

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I shall choose a few examples which seem to me to be uppermost.

Productivity in Education

Changes in the productivity in education have an important bearing on salary disputes. Some conflict arises from different concepts of productivity. A few critics of schools argue that school systems are laggard in developing means to increase productivity. For example, some critics view declining pupil-staff ratios as an index of decreasing productivity. The reasoning is that the quantity of personnel should decrease in relation to the number of pupils or the units of production. Teachers believe that schools have never been staffed adequately at any point in time. They view the general trend of declining pupil-teacher ratios as a movement toward greater and not less productivity, certainly until some quantitative level of staffing for optimum instructional efficiency is reached.

The commonly accepted goal of providing for the educational needs of every pupil has led to an increasing differentiation of programs and services, methods of instruction, and roles of the professional staff members. The large school systems are the communities where most differentiation of professional staff has taken place. Here we find the greatest extent of special classes for the various deviational needs of pupils and professional services—counselors, psychologists, librarians, and supervisory staff. On the other hand, these school systems have a lower proportion of administrative staff in relation to pupil enrollment than the small systems. While large school systems have added more specialists than the small systems have, many large ones have not been able to maintain desirable pupil-teacher ratios for regular classroom teachers.

All systems with limited financial resources operate under extreme difficulty in maintaining rational policies in the allocation of staff and facilities. Seldom can they maintain adequate pupil-teacher ratios and the additional specialists that are considered essential.

There are some claims that the research findings are inconclusive as to an optimum class size range for most instruction. I interpret the findings in favor of class sizes of 20 to 25 pupils per teacher in the elementary grades for regular instruction and 18 to 20 in high-school grades. One reason why the evidence in some studies is not conclusive about class size is the lack of precision in the studies to measure real differences. In most cases where such studies were done, the teachers in the control groups did about the same kind of teaching as they did with larger groups of children. Their methods in the control groups were about the same as in the large groups because they were not in a position to make fundamental changes in the learning environment which they are attempting to control.

Standards of excellence sought in education require not just a differentiation of role, but also a differentiation to provide a higher pupil-staff ratio than commonly found in most school systems. Of course, a higher pupil-staff ratio must be accompanied by new methods of instruction, new tools of teaching, and capital facilities to provide better learning environment. But the economic assumption is that additional tools and materials will effectuate a reduction in staff and hence a net saving.

The increasing differentiation in all aspects of education is a trend which gives rise to anxiety, if not frustration, in the teaching ranks. Until there is further knowledge about the nature of differentiation of staff that is needed to accommodate all the complex needs of children, there will be some frustration from basic insecurity of roles which are in a state of flux. Let me give an example which I have observed among teachers. A remedial teacher will take pupils from a large number of regular classes for special or supplementary instruction. The regular teacher argues that she could accommodate some of this need if the size of her class is reduced to an appropriate number. She does not argue that all of the need could be met in this fashion. The regular teacher cannot solve the problem of every individual because she cannot manage the diverse learning situations that are most appropriate for every pupil. The basic question, therefore, is not the validity of the remedial teacher's role. She has a great range of opportunities to create learning situations for remedial purposes.

Consider, though, for a moment the regular teacher whom this remedial teacher is supplementing. The regular teacher has, let us say, 25 pupils or some optimum number. In this situation the teacher has a terrifically complex task. It is so complex that the most competent teacher conceivable is not just a generalist but she must be a specialist of a high order. Many teachers argue that there is no justification whatsoever for any salary differentials between these two teaching roles. Differences among salaries of individuals can be justified as a result of variables, such as amount of college preparation, specialized preparation in teaching, length of service, but not on role.

Teachers have been criticized often for a unitary concept of the teacher's role which excludes such concepts as meritorious performance and opportunities for career development. I doubt that they reject the fundamental notion of performance as a criterion in the salary structure. They are rejecting two things: (a) the implicit situation whereby conditions for recognition of performance automatically reward some roles and neglect others, and (b) the lack of valid measures of performance.

I have never observed a single school system with adequate resources to take care of all legitimate principles for rewarding the individual. Boards of education have little flexibility in dealing with the problem of equity in the allocation of resources because of the marginal economic level on which they are operating.

At this level, equity looms large among teachers. Errors in measurement of equity are far more serious at marginal or survival levels than at affluent ones. When the role of the remedial teacher is given higher prestige than the regular teacher by definition, and reinforced by special earmarked aids and salary differentials, a condition for conflict in the system is created.

Instructional materials and facilities constitute a large factor in the so-called production of the educational system. Some fields of instruction have a natural advantage over others in this respect. There is a paradox here which I have observed in school systems on all expenditure levels except the very highest ones. Materials and facilities severely limit teachers in most instructional areas, notwithstanding imagination and ingenuity in using what they have. Most teaching is done in relatively cramped quarters with almost wall-to-wall seating of children for sedentary work. Truly adequate amounts of space to arrange various groupings of children for most effective utilization of materials would require much larger instructional areas than those to which most teachers are accustomed.

The volume of necessary materials is always underestimated. For example, it is not uncommon to find schools where administrators and teachers are satisfied to have a couple of overhead projectors which all teachers have to schedule for limited and infrequent use, when imaginative use of these particular instruments would require a dozen or more. Teachers frequently will say that they have enough of such materials, and indeed they do for the kind of use they are making of them. In these same schools, teachers will argue for a salary policy which places a high premium on maximizing the proportion of the budget that goes to teachers' salaries and minimizing the amount that goes for other expenses, including materials and facilities of instruction. Until the nonsalary and salary components of cost are adequate in terms of defensible standards, such a policy leads to contradictions and some frustrations.

Supply and Demand

Supply and demand have a way of upsetting a rational system of salary policies. About the most that can be said is that employers are realistic and seem to respond pragmatically when supply is scarce. Qualified teachers do not have the advantage of some occupational groups, such as physicians and lawyers, who are operating in a semi-private if not completely private market of services. The public school systems do have some alternatives which they could utilize, such as investment in further education of some persons in fields of oversupply to prepare themselves for shifting to fields of scarcity. School systems are at a disadvantage in not having adequate resources to invest in the short-term costs for this kind of adjustment. Business and industry utilize this method to some extent.

There is much to support the assertion that there is no real shortage of teachers, but a shortage of well-prepared teachers for various roles. I was amazed, for example, to find in the elementary schools in Idaho a large proportion of teachers without college degrees. These teachers are paid low salaries. Citizens have been accustomed for many years to a large number of teachers with little college preparation. It is probable that this tradition may be contributing to the present unwillingness of many citizens to pay salaries of two and three times the accustomed amounts to well-trained teachers. It is also probable that the inadequately trained persons have the capability of a higher quality of teaching if they were better educated.

Salary levels affect supply and demand in two important ways. In the first place, they affect the young persons who are choosing teaching as a profession, particularly men. In the second place, salary levels affect the adaptability of some members of the teaching profession to change roles. My observations convince me that we have in the profession a tremendous waste of human potential of individuals who are not economically able to make further educational investment in themselves to meet the changing demands of the profession.

Many individuals are sufficiently adaptable to change the nature of their teaching as well as to improve the quality of it. But to do so, they may never be adequately prepared so long as they depend exclusively on extending their training or re-training over a long period of time through little bits of formal study such as extension courses. I do not mean to depreciate the value of these experiences. They are important and necessary. But I am sure that what many individuals need is an extended leave of absence of a year or two years to do a concentrated study on a full-time basis. It may be necessary to establish programs of massive leaves of absence of substantial nature for teachers to cope with the problem of professional adaptability. They need a striking break from their accustomed intellectual routines to undergo a rather thorough and substantial change which cannot be accomplished in a short summer school. I have found evidence to support this observation among teachers who have come from the field to pursue advanced graduate study. It is true that most of these individuals are in the young age groups and have not taught long enough for the profession to make its full imprint on them. However, there have been sufficient numbers in the upper age ranges to support the assumption.

Public Image

Part of the conflict over salaries lies in the image which the public holds of teachers. Citizens tend to perceive the teacher as having a steady salary and, more frequently than not, one that is above the average of other occupational groups. Some observations show that these perceptions have placed the teachers higher than their real status in comparison with suitable referent groups.

Special conflict arises with men in the profession. Most salary levels are too low for them and other heads of households to provide adequate support for their families. Many of them whose wives teach resent the fact that it is necessary for two members of the family to work in order to have an adequate living standard.

Moonlighting by men is all too common in some communities. Income which is earned from such outside work can be viewed as an indirect subsidy to the cost of education. The cost shows up in some instances as a contribution to keep the person in teaching. But this is not the only form. It may show up indirectly as a loss in professional study and in time which the person might use in preparing for his teaching.

Something should be said, however, about beneficial effects of limited moonlighting when outside work is in the field of one's professional activity. For example, in higher education there is a widespread practice of consulting work which staff members pursue in various fields such as engineering, sciences, communications, and to some extent in education. An engineer may render consulting service to a governmental agency or to a business firm, with a useful service to the recipient and a valuable learning experience to the staff member. I have found very few teachers in the public schools who are rendering such services.

The personal, informal touch of teachers with the community, particularly in the small community, stands in the way of public acceptance of higher salaries. Familiarity with the teacher lowers the laymen's level of salary acceptability. Thus, the prestige of the teacher in many communities becomes associated with the public image which tends to keep the teacher at a low economic status. On the other hand, the prestige of the teacher is, in his view, coming to be shaped more and more by cultural forces beyond the local community. He perceives himself as being a member of a nationwide professional group. But salary policies are shaped largely by the public prestige values at the local district level.

This conflict pattern is not eliminated in the urban community. In this situation teachers have lost some of the direct and personal touch that is found in the small community. Thus, they have tended to shift to large-scale organization to maintain a professional image.

We cannot overlook the conflict which arises in the minds of some teachers through some loss of original expectations which they had in making the decision to enter teaching. Some individuals may have been unduly influenced by the promise of piecemeal advances that they observed in the profession. They observed trends of teachers' salaries that appeared favorable at the time of decision, and they reasoned that a real breakthrough was in the offing with satisfactory economic returns "in their lifetime." By the time they had graduated from college and had taught a few years, they discovered the realities of the cost of living and their true economic status. Some have become disenchanted and have left the profession to seek employment in other occupations. Every study that seeks to find the causes of professional dropouts reveals that lack of adequate salary is one of the major ones, particularly among men.

Career Development

The notion of career development seems to be practically lost in wage theory that is applied to salaries of teachers. An illustration of this is found in the attitudes of teachers toward steps on salary schedules. There is widespread feeling among teachers that they want the monetary rewards "now" and not 10 years later. There are two implications involved here. First, the teachers perceive annual increments as a series of delays in achievement of a reasonable living standard. Second, the first 10 years is the formative stage in a teacher's career. He has either made it by then or he is dead professionally. He needs a rewarding experience and at least two years of graduate study during this period. Further schooling is expensive. What most persons need is beyond their economic ability to manage. Unfortunately there is some sense of futility within the teaching ranks because of the economic limitations to make adequate professional advancement during these years.

This conflict shows up clearly between the young and the old members in the profession. There is an implicit assumption in present salary policies that the young person has to establish himself fast in order to get into some special area with monetary advantages, because he will be put on the shelf professionally in 10 to 15 years. He, therefore, proceeds to prepare for school administration, special services such as counseling or supervision, or some other role which offers better financial returns than classroom teaching. He may attempt to enter college teaching where he sees an opportunity for a career as a classroom teacher.

We have never fully tested the proposition that classroom teaching is an altogether suitable career activity for men below college level. Adequate salaries would be one of the basic conditions for such a test. There may be others of great importance. For example, why are there relatively so few men above age 35 doing full-time teaching?

Psychological Factors

One of the basic drives for self-esteem among teachers is to obtain an adequate standard of living. This is closely tied to the teachers' perception of the public image of the teacher. The crux of salary disputes is the inadequacy of salaries to permit the members of the profession in general to maintain a standard of living which enables them to live effectively as a professional group.

The salary represents more than a standard of living. It is also a mark of professional status. Thus, considerations involving salary level, structures of schedules within a school system, and other matters strike at the roots of basic ego satisfactions.

There is a natural tendency for teachers to concentrate their dissatisfactions on administrators and governing bodies. Unfortunately, some administrators and boards of education do not fully understand the dissatisfactions and motivations of the teachers and how to proceed with sound psychological methods of reducing tensions. Anxieties build up to a pitch about midyear during the period when the budget begins to take shape for the next year and when employment contracts with other school systems are most active.

During the period of the budget-making process when there is imminence of change in salary policy, teachers have a feeling of insecurity. Often they do not feel that they have a vital role to play in this process. In most school systems, particularly the large ones, preparation of the budget begins in the early fall. Information is gathered slowly over a period of several weeks. During this time teachers are only remotely in touch with this process. They do not understand the various intricacies of budgeting. They feel inept at evaluating the economic situation of the school district as a basis for judging the ability of the district to provide better salaries. They do not possess the expertise necessary to make this evaluation. Committees are bewildered when they undertake the special task of studying salary policies. Actually they undertake a task of evaluation for which they are not technically prepared. They do not feel that they have full access to expertise for this function. I have observed some basic distrust of teachers for the "financial expert" in the central office. Unfortunately, they often perceive such a person as a representative of administration and not the teachers. What they fear is that the "expert" not only has knowledge superior to theirs but that he is biased against them.

School administratrators sometimes exhibit evasive behavior in their analysis of salaries because they are dependent upon state policy. Most legislatures act from one biennium to another and they customarily establish fiscal policies that project for no more than two years. For this reason, administrators and boards of education operate under some uncertainty while awaiting action of legislatures from one session to the next.

It seems to me that the main root of these difficulties lies in the function of evaluation. Much lip service is given to continuous appraisal of educational and fiscal needs. But I am afraid that there is not enough systematized evaluation with sufficient depth and comprehensiveness to give all parties concerned an adequate basis for making dependable judgments. Salary disputes offer plenty of evidence that the evaluative function in education is woefully undeveloped in terms of known methodology. However, I do not mean to imply that solution of disputes lies in improvement of methods of analysis. But good analysis can lead to correction through change in public policies.

Even in the best of situations where teachers participate in the evaluation of needs of the school system, they do not have a sense of the right to participate. From their point of view they are participating from a position of weakness.

In small communities where the interactions among teachers, administrators, school-board members, and citizens in general are intimate and personal, teachers find it difficult to operate through highly formal methods. In their situation, a formal organization of teachers appears to be a threat to the accepted modes of interaction.

In the larger communities, where life becomes more organized, teachers find that formal organization is an appropriate mechanism to achieve identity and communication. However, there is a tendency in many of these situations for relatively small in-groups of active individuals to hold membership on several committees. Thus a few individuals become highly visible to administrators, the board, and the community. Strains and frustrations develop among them as a result of their insecurities and visibility.

Citizenship of the Teacher

Part of the dispute over salaries arises out of the conflict in the role of teachers as citizens. By the nature of their occupation they are expected to be exemplars of the finest human traits. Traditionally they have been fenced into a narrow range of professional service. They could not be too active in the community lest they either neglect their teaching or contaminate it with partisan activity.

The conflict arises, however, as I see it, not so much over mores about the circumspection of teachers as something else. They perceive that their citizenship has been limited to activity within the educational institution and that it has not extended into the realm of political decisions about conditions which determine the nature of the institution. Many teachers now believe that knowledge for the solution of educational problems must have its advocates in the council chambers of government. They believe that teachers should become politically active, through their professional organization, in the election of legislative representatives who are committed to a full and fair consideration of education. A good example of this emerging attitude is found in Utah where recently the concerted action of teachers resulted not only in electing a substantial number of pro-education members to the state legislature but also in electing persons from the teaching ranks.

Governance of Education

These changes in thinking and action of teachers may be symptoms of something more fundamental than their role in society. They may suggest a failure of government to adapt its machinery to cope with the magnitude of the educational enterprise. State legislatures are inundated with bills in every session. There is inadequate time for extensive deliberation on the multitudes of issues clamoring for attention. State educational agencies are either understaffed or inadequately financed to contribute most effectively to the function of analysis so that policy proposals are adequately communicated to the legislature for its functions of deliberation and decision.

More Than Salaries

Teachers are asking for more than salaries. They are concerned with the general conditions of teaching and learning. Most recent controversies, for example, arose out of the claim that educational conditions were unsatisfactory, including low salaries, meager instructional materials, short supply of teachers, absence of special programs and services, inferior school plants, and lack of public recognition of the necessary resources to provide a modern educational program.

There is an assumption among teachers that the best educational results obtainable by a school system require some optimum balance or mix of the various inputs. Teachers have some motivation to assist in the evaluation of this mix. Thus, the conflict over salaries is only part of the urge within the profession to participate in the general function of evaluation.

Teachers have been criticized for placing too much emphasis on themselves and their working conditions and too little on the pupils. In some of the controversies the arguments are debated at a level with semantics that lend some support to this claim. But one does not have difficulty probing the true basis of the teachers' position.

The matter of security, for example, has to be examined in depth. Tenure is only one aspect of security. It is a membership card which admits the teacher to the profession, but it does not bestow upon him deep and lasting feelings of security which he must earn. These come with accomplishment, recognition, and appropriate relationships with pupils, colleagues, and the public.

PART TWO

The Foundation Plan

The Local-State-Federal School Finance Partnership

Erick L. Lindman

FEDERAL PAYMENTS to public schools for current expense purposes have been increasing consistently during recent years. In total annual amounts, federal contributions have increased 20-fold since 1940. As a percent of public-school current expenditure, the increase was from 1.7 percent in 1940 to approximately 5 percent today. In one state, Alaska, the federal contribution exceeds 25 percent; in a few other states the federal share exceeds 10 percent. On the other hand, in New York, the federal share is approximately 2 percent.

In the absence of a broad general support program, federal contributions to public schools are made under several different programs of limited purpose. Indeed, a review of the federal laws which authorize payments to public schools reveals an amazingly complex pattern.

Some federal programs are intended to compensate for deficiencies in the school tax base. In this category are (a) shared earnings from federal tax exempt land and mineral resources, (b) payments in lieu of property taxes, and (c) payments to local school districts under Section 3 of Public Law 874. In the same general category are various proposals for interstate equalization and general school support, which seek to compensate for deficiencies in the over-all state tax potential.

Federal payments made on this basis tend to be free from program controls. They reflect the view that additional funds over and above amounts which can be expected from state and local taxation are essential to expand and improve public education.

Other federal programs are intended to broaden the scope or improve the quality of public education. In this category are (a) federal contributions for vocational education, (b) payments to local schools under the National Defense Education Act, (c) federal contributions for various types of compensatory education, and (d) federal contributions for ROTC programs. Under these programs, the federal government seeks to strengthen selected curricula or to broaden the scope of public school services. The purpose is not to aid the on-going program. Indeed, the ultimate effect is likely to place additional burdens upon the school budget.

Finally, some federal programs are intended to educate individuals for whom the federal government accepts responsibility. In this category are federal contributions for the education of Indian children, war veterans, Cu-

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ban refugees, and selected trainees under the Manpower Development and Training Act. Federal contributions under these programs are essentially tuition payments for selected individuals.

With these three different rationales for federal contributions to public schools in mind, the problem is to relate these federal payments to state school support programs. To do this, it is necessary to identify the different types of financial arrangements which support various parts of the increasingly complex public-school program.

School finance theory since 1925 has been focused almost exclusively upon the foundation program financed from state and local funds. Since the foundation program stresses uniformity and equality, little attention has been given to state and federal support for optional programs. These programs need more attention, if federal payments are to be integrated into a local-state-federal school finance partnership.

A public school system in a typical American city provides a great variety of educational services and programs. Many of these programs are supported, in whole or in part, from state or federal funds. Some are supported entirely from local school district tax funds. Four types of financial arrangements are identifiable:

1. The jointly financed mandatory foundation program
2. Locally financed optional programs
3. Jointly financed optional programs
4. Contracted programs with no local contribution.

Much has been said about the jointly financed mandatory foundation program. It is, or should be, defined by the state legislature to assure for every child in the state opportunity for basic instruction of a kind and quality deemed to be adequate. It stresses equality of educational opportunity. Since it seeks to provide a basic state-wide program, it is, or should be, financed by taxes borne uniformly by all taxpayers in the state. The provision of such a program of instruction is not, or should not be, optional with local school boards; it is, or should be, a state-mandated program.

Locally financed optional programs are authorized, but not financed, by the state. They are financed by local taxation in excess of the required local contribution to the mandatory program. Included in this category are expenditures for smaller classes, for teachers' salaries in excess of the state minimum, and for supplementary instructional programs not provided for in the state mandatory program. For example, the latter might include special music teachers or foreign language instruction in elementary schools. Such programs provide special advantages for pupils in a local school district and are, or should be, financed from local tax sources.

Jointly financed optional programs include those for which the state contributes a part of the excess cost and the local school district contributes the rest. These usually include programs which are expensive, and which the legislature wishes to encourage, but not mandate, for all schools in the state. Typically, programs for exceptional children and some vocational education classes are in this category. In some states, summer schools belong in this group.

Various arrangements for sharing the cost of such programs between the state and local school districts have been developed. Perhaps the most promising is the "equalized matching" plan in which the less wealthy school districts are given a more favorable state matching ratio. For example, a school district of average wealth might receive 50 percent of the excess cost of such programs from the state, while a school district in which the assessed valuation per pupil is quite low, might receive as much as 90 percent of the excess cost from the state. Equalized-matching formulas have been developed which can be used to provide for variation in the matching ratio, combining the advantages of equalization and local matching.

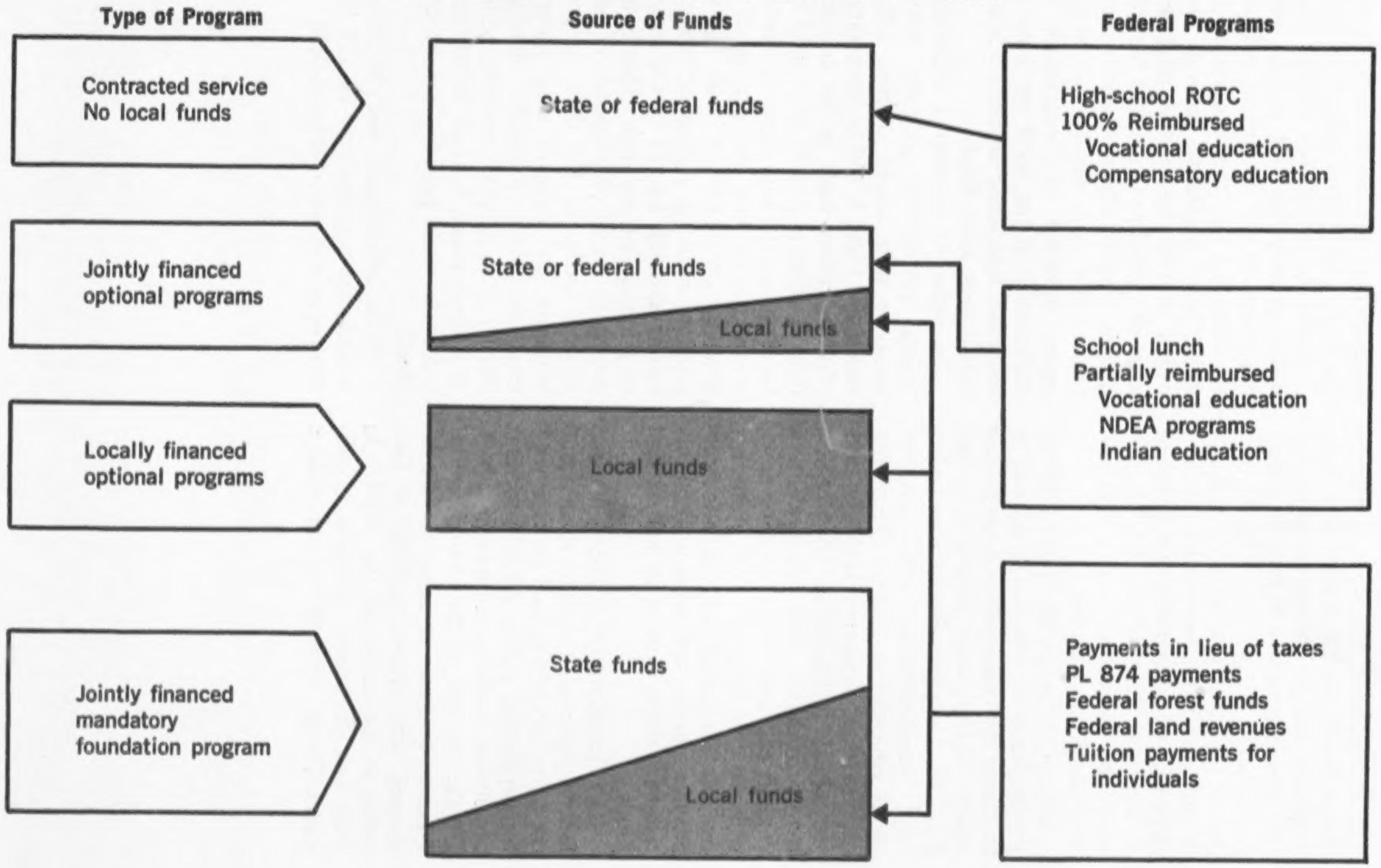
Contracted services are operated by local school systems but financed entirely from external funds. In these programs the beneficiaries are not exclusively the residents of the local school district. Such programs may serve a region of the state as illustrated by an area vocational school, or they may serve a federal purpose such as retraining unemployed workers under appropriate federal laws. The distinguishing characteristic of contracted service programs is that the school district contributes facilities and know-how while the funds are provided entirely from state or federal sources or from another department of local government, as in the case of recreational programs using school facilities. As federal programs for the education of culturally disadvantaged, and for the retraining of unemployed workers gain momentum, public schools may be called upon to render such contractual services more frequently than they have in the past, especially in the big cities. Therefore, it is important that expenditures for contracted service programs be identified and charged to the proper agency.

To summarize, then, four distinct types of programs have been identified, each of which has its special financing arrangements. First, there is the state mandatory program guaranteed for every child in the state, financed from taxes borne uniformly by all taxpayers in the state. Second, there are optional local programs supplementary to the state mandatory program, financed exclusively from taxes borne by the local school district property taxpayers. Third, there are the jointly financed optional programs, in which the cost is shared by the state and the local school district. And, finally, there are the contracted service programs, in which the full cost is paid by another department of local government, by the state, or by the federal government.

Among the four types of financial arrangements identified in this paper, jointly financed optional programs present some special problems which have caused confusion in many states. Basically, the financial arrangements for these programs have sought to identify their excess cost, and then to reimburse the school district for a part of this excess cost from state sources. In view of the fact that the federal government is also contributing to various kinds of special programs, it is necessary for each state to develop a clear statement of what is meant by excess cost of such programs.

First, an accounting system is needed which identifies clearly their total cost. From this total cost must be deducted the amount of revenues "earned" by the program through the operation of the state mandatory program, and from federal sources. By this method the "net" excess cost is determined. This net excess cost can then be shared by the school district and the state in accordance with a variable matching ratio, with the state contributing from 50 percent up to as high as 90 percent of the net excess cost. Under

THE LOCAL-STATE-FEDERAL SCHOOL FINANCE PARTNERSHIP



Type of Program
Source of Funds
Federal Programs
Contracted service
No local funds
State or federal funds
High-school ROTC
100% Reimbursed
Vocational education
Compensatory education
Jointly financed
optional programs
State or federal funds
Local funds
School lunch
Partially reimbursed
Vocational education
NDEA programs
Indian education
Locally financed
optional programs
Local funds
Jointly financed
mandatory
foundation program
State funds
Local funds
Payments in lieu of taxes
PL 874 payments
Federal forest funds
Federal land revenues
Tuition payments for
individuals

this arrangement, the state is assured that a local school district which inaugurates such an optional program has sufficient interest in it to provide a local contribution. At the same time, the burden of financing the program will not be excessive in the low wealth districts, since the state reimbursement could be as much as 90 percent and the cost would be subject to review by both state and local authorities.

One of the purposes of this plan for jointly financed optional programs is to clarify the relationships among local school boards, state legislatures, and the U.S. Congress. Legislative bodies have responsibilities and concerns about educational quality. Often they express their concerns through categorical aids to education. The problem is to provide for such categorical aids without excessive administrative costs, without interference with necessary freedom of local school boards to operate the schools, and without duplicate reimbursement from state and federal funds.

The relationship between various federal payments to public schools and the four types of financial arrangements for supporting public-school programs are shown in the accompanying chart. On the left side of the chart, the four types of financial arrangement are indicated with arrows pointing to four boxes in the center of the chart. In each box the source of funds is indicated. On the right, the various federal programs are listed with arrows pointing to the appropriate part of each box.

It will be noted that federal funds which provide for 100 percent reimbursement of cost of special programs are funnelled into the "contracted service" box. Similarly, federal funds which provide for partial reimbursement of special programs are funnelled into the "jointly financed optional programs" box. And, finally, federal payments intended to compensate for deficiencies in the local tax base are funnelled into three different boxes to supplement local funds.

In order to develop a local-state-federal partnership program, adjustments in state school support will be necessary. First, it will be necessary to allocate factors used in the computation of state payments to school districts among the four types of financial arrangements. For example, pupil attendance credit earned in an optional program must be segregated from attendance credit earned in the mandatory foundation program. This is necessary to avoid duplication of state support credit for the same program. Similarly, the costs of each program must be more precisely identified. Finally, each program must be credited with appropriate federal contributions before the state payment can be computed.

These adjustments will be controversial and will generate heat. I hope this paper will generate some light.

Fiscal Incentives in State Aid Provisions

Charles S. Benson

By "FISCAL incentives in state aid provisions," I assume we mean devices through which a cash nexus is established between state governments and local-school authorities, of a type which serves to induce local authorities to do certain things they would not otherwise be inclined to do. In the statutes of the 50 states, there are several hundred of these devices laid out, some simple in form and some of extraordinary complexity. It is necessary in a brief discussion to restrict comments to a few types of fiscal incentives. I propose that we look first at general-purpose aids in broad sweep and then that we consider some new forms of specific aid (at least, I think the forms are new!).

With respect to general-purpose grants, let us make the further simplification of confining the analysis to two main types: the foundation program plan (Strayer-Haig) and the percentage-equalizing subvention (or matching grants on an equalizing basis). The first type is still the one in most common use, as measured by share of ADA of states that employ it. The second is the type that is gradually finding favor among progressive eastern states. I leave out the Johns-Morphet variant, even though it is enjoying a rise in popularity as well, because it is a kind of cross breed, having features somewhat like those in the Strayer-Haig form and somewhat like those in the percentage grants; hence, to include it in the discussion would make it harder to see the contrast between the fixed-unit (foundation plan) approach and the newer percentage schemes.

The question we are asking about these two basic plans is essentially this: For a given (small) rise in state aid, under which plan is the increase in total educational expenditure the greater? This is a question that can be phrased in terms of the economist's concept of elasticity:

Elasticity of educational expenditure equals percentage change in total current expenditures per pupil in state divided by 1 percent change in general purpose state aid per pupil.

For the given increase in state aid, what is the response in total spending? Is the response likely to be greater or smaller, depending on which type of aid program a state employs? These are the matters under consideration.

On the face of it, percentage grants should win hands down. Local authorities receive matching funds from the state and continue to receive them even when they pull their expenditure levels up quite far. In contrast, the Strayer-Haig formula offers no financial assistance to a locality over and beyond the state's share of the fixed unit amount (per pupil), known as the foundation

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program. The other side of the coin is that under Strayer-Haig no locality suffers a reduction in state aid if it decides to cut its expenditure per pupil, provided it continues to meet whatever requirements in the nature of mandatory tax rates that are put upon it. This all says that the percentage grants serve to reduce the price of educational services in the local district over a wide spectrum of quality of service, while the Strayer-Haig plans do not. It is a characteristic of man to respond to bargains in price, so one would expect, *a priori*, that the percentage grants offer more powerful fiscal incentives than do rigidly defined fixed-unit programs.

This line of argument overlooks the fact that legislatures can raise the amounts of the foundation programs and that they can also raise the amounts of mandatory local tax rates. Such a fact makes a comparison of the general stimulation effects of the two types of grants rather pointless. All one can say is that the percentage grant offers an automatic fiscal incentive to local authorities, while the Strayer-Haig plan requires legislators to go through the exercise periodically of determining what "good education" costs, on the average, in the districts of their state, in the sure knowledge that the only answer ever to be discovered is "more."

Actually, I am leading up to what I think is a much more interesting set of questions. What kinds of districts, relatively speaking, receive the stronger incentive to spend under the Strayer-Haig plan and what kinds receive the stronger incentive under the percentage grants? Before I suggest some answers, I would like to raise an introductory question: In the view of the changing social and economic structure of our country, which types of districts, again relatively speaking, *should* be provided with the stronger inducement to spend? My own preference would be those whose populations are concentrated in the lower socioeconomic groups. Frankly, I would like to see these districts advance their volume of spending at a somewhat higher rate than high socioeconomic districts did. I base my preference on the following six points:

1. The job structure of the United States is shifting strongly toward professional, technical positions, and toward white-collar occupations generally. Three-quarters of the 21 million new jobs to be created between 1960 and 1975 are estimated to be either in the white-collar or craftsman category. It follows that the level of the educational threshold for stable employment is rising inexorably.

2. There is nothing yet on the horizon to indicate that private employers are going to make a mass effort to provide formal schooling for workers. The job of helping young people over the rising educational threshold is left mainly to the public schools.

3. It has recently become clear that the educational attainment of pupils is significantly associated with the socioeconomic standing of households in the school district in which they live. This means that the schools in industrial, working-class towns may need to try harder than the average district to bring the same proportion of their pupils over the rising educational threshold.

4. On the other hand, for many years our educational structure has been characterized by geographic inequalities of educational provision. That is, upper-class suburban districts have had better teachers, better buildings, and more generous supply of auxiliary services, like libraries, than have the older, poorer industrial cities and towns. This situation still exists in noteworthy degree.

5. At the present time, the workers who are acutely affected by technological unemployment are those workers who did not attend a four-year college. I know of no good reason to expect this condition to change.

6. Many districts concentrate their best teaching resources on the college-bound youths. Hence, the youth not bound for college, for whom crossing the educational threshold may be especially difficult but for whom it is certainly especially important, are under a double handicap in poor districts: inadequate educational resources made available to the district and a distribution of resources within the district unfavorable to him.

These six conditions lead me to the conclusion that it is important that poorer districts move ahead more rapidly than the rich, because otherwise we shall face the prospect of a continuing inequitable distribution of involuntary leisure, i.e., unemployment.

Now let us turn back to the question about which type of aid plan, Strayer-Haig or percentage equalizing, offers greater financial incentive to the poorer districts. Suppose we define a *unit* of educational services as the amount of services that can be bought at an expenditure of $100 per pupil. The *price* of educational services, let us say, is the local tax rate required to purchase another (or one more) unit. In the absence of state aid, the price obviously will be low in rich districts and high in poor ones. For example, let District A have an assessed valuation of $40,000 per pupil and let District B have an assessed valuation of $10,000. The price of the first unit in District A is 2.5 mills and in District B, 10 mills. The willingness of local taxpayers to support school services—and this is an important point—is influenced both by the absolute level of rates and by the relative level as well. In the example above, District B would be reluctant to expand its educational services because the price it pays for these services is so much higher than the price that the citizens of District A are called on to pay.

Next let us make some simplifying assumptions. Let us assume that we can ignore sparsity, small school size, and the elementary-secondary cost differential. Let us assume further that assessed valuation is constant throughout the school year and the enrollment is constant also. Let us introduce state aid, first in Strayer-Haig form and then as a percentage-equalizing grant and see what happens to the local price of educational services.

In a given state, suppose that the average expenditure per pupil is $400. Let the state have a Strayer-Haig formula in which the foundation program is set at $400 and in which there is a mandatory local contribution rate of 10 mills. The minimum permissible expenditure on schools now becomes four units and all districts receiving equalization aid under the formula obtain these four units at a total price of 10 mills. So far so good. But it is common practice to set the local contribution rate high enough to exclude some rich districts from the operation of the formula. In this instance all districts with assessed valuation of $40,000 per pupil and above are so excluded. Further, it is common practice to provide flat grants to the excluded districts (but only to them). Now take a district with $60,000 assessed valuation per pupil and let it receive a flat grant of $100 for each of its school children. Its total price of the standard four units of educational services is not 10 mills, but 5 mills.

However, the really difficult problem seems to be this: All expenditures above the amount of the foundation program create differentials in price just as if there were no state aid in existence. If the $10,000 per-pupil district wants to move to an expenditure level of $500, the price is 10 mills (yielding a total local tax rate of 20 mills). If the $40,000 district wants to move to $500 per pupil, its price is 2.5 mills (giving a total local tax rate 12.5 mills). The poor district could well feel, in Kipling's words, "the price is cruel high."

On the other hand, suppose the state was employing a percentage equalizing formula. If the average assessed valuation per pupil was $20,000 and if the state's average contribution rate was 60 percent, the poorest district, the $10,000 one, would be receiving aid at the rate of 80 percent and a rich district, the $40,000 one, at a rate of 20 percent. The price of educational services in both districts would be constant as expenditures expanded and it would be the same in both districts, namely 2 mills. If each chose to spend $500 per pupil, the total local price in each would be 10 mills. The 4-to-1 total price differential between the $10,000 and the $40,000 districts of purchasing services beyond the foundation program in the Strayer-Haig example has been wiped out. In summary, the percentage equalizing plan gives no particular advantage to poor districts, but it does remove the relative disadvantage under which they have labored for many years.

Insofar as taxpayer resistance to higher school levies is a function of relative differentials in price (i.e., local tax rates)—and I think it is a function —one must say that foundation program plans, as standardly administered, offer a financial incentive to the richer districts of a state and a financial disincentive to the poorer districts. The percentage equalizing plan reduces the price of educational services more uniformly in all districts and, hence, offers a more widely distributed type of financial incentive.

It might thus be good policy to incorporate some form of equalized matching provision in the general aid programs in most—I do not say all—states. A general advantage is this: We live in an age of educational experimentation and it is always difficult to determine what the cost of certain new practices is going to be in different types of districts; percentage grants allow state governments to share in the financing of new services even before costs have become standardized. But I am not sure that even these provisions will take care of the changing educational requirements of poor districts, requirements related to the need to bring as high a proportion as possible of their students over the rising threshold of educational prerequisites for employment. I suggest that better special-purpose aids are called for, and I would like to see the distribution formula related to achievement test scores in the districts. For example, suppose the state provided funds to pay the full salaries of a defined number of specialist teachers in all districts. (I assume that means can be devised to establish workable criteria, which would be administered by the state departments, for the selection of teachers to serve in the specialist roles.) It should be possible to allocate an extra number, a larger quota, that is, of specialist teachers to those districts in which an unusually high proportion of pupils in any single school scored below state-wide norms on standardized achievement tests.

If it be claimed that the number of people qualified to serve as specialist teachers is too small to allow districts, and especially the poorer districts, to fill their quotas, it would be appropriate for the state to take action to increase the supply. This could be done by granting awards equal to full salaries of certificated teachers who undertake an additional year (or more) of training, with preference given to those teachers who indicate that they are willing to work in the schools of disadvantaged neighborhoods. What if the additional burden of cost of this program appears to be too great for state revenue sources to bear? Then, the state might appropriately use a pooling arrangement. This is a handy device which, to my knowledge, has not come into common use in the United States. A state government, for example, would calculate the distributions it had made in a given year for teacher retraining. Suppose it wished to assume 50 percent only of this burden. It would simply deduct 50 percent of the calculated total cost from general purpose allocations otherwise due the districts, with the deduction distributed among the districts on the basis, say, of average daily attendance.

If it is contended that the more widespread use of general-purpose percentage aids and of special purpose aids implies a greater degree of state control over local school policy, I would be the first to agree. I do not think this a bad thing. But in any case, I suggest we face the prospect either of greater state control or greater federal control. I would opt for the former, because I believe most state governments are quite large enough to provide the broad administration of the educational services. To be doctrinaire about localism may kill local school government, but should the states help direct the efforts of local authorities toward national priorities of educational provision, we may easily preserve viable local administrations in our society.

Weighting Factors in State Foundation Programs

Albert R. Munse

MEASURES OF educational load for state support plans of general elementary- and secondary-school purposes are of several varieties: census, enrollment, average daily membership, average daily attendance, days of attendance, classroom units, teacher units, and employed teachers. Depending upon certain theoretical or practical considerations, the states select and employ one or more of these measures for use in establishing state foundation program amounts. Each district receives equal program consideration in relation to the particular base used.

However, many states have wished to provide program recognition for certain additional considerations: to reflect cost variations beyond local control, to assist districts to meet the additional amounts needed for compliance with state salary schedules, and even to influence school districts to move toward state recommended goals. These factors have been studied and, based on these studies and necessary legislative compromise, have been included in many of the state foundation programs. The procedure for providing this recognition has been to include extra allowances, to "weight" the basic program allowance per unit of educational load.

Within the framework of the foundation program various other state purposes may also be served. For example, state funds may be distributed to encourage a high degree of local discretion and responsibility in planning and supporting a school program, including locally determined staffing practice, by establishing program levels while avoiding specification of the use or application of the money, other than designation of its use for education. A program may establish a state goal for adequate staffing and for other school services by designating support at either the level of the local program or at the state standard, whichever is less. Of course, the program may serve to encourage improved district organization by providing a more desirable program level for districts meeting the higher desired standard for district and school organization.

This discussion of weighting factors gives specific information for some of these state purposes, hints at some purposes, and loses sight of many other purposes. This is unavoidable where the purpose of the presentation is to identify, and where possible, quantify the weights. Factors have been identi-

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fied and separately presented as individual building blocks; only the separate dimensions of these individual blocks have been established.

The state public-school finance program leaflets, prepared and published by the U.S. Office of Education in cooperation with a school finance contact in each state department of education, provided the information for this presentation.

Interrelationships of these blocks are not always evident. If your concern is broader, you will want to extend your thinking to include the interrelationships of the various weighted and unweighted items within the foundation program and the significant influence of other state grants provided for general distribution to school districts.

Weighting Factors for General Program Support

It is a fact that the typical state foundation program employs weighting factors in the determination of amounts for general school operating expenses, including allowances specified for instructional salaries for the general instructional program when such amounts are separately identified in a foundation program. As shown in Table 1, 41 states employed such foundation program weighting factors in 1962-63, and in addition three states employed one of these same factors in some other program by which state money is distributed for general-purpose use. "School or district size," used by 29 states, and "pupil grade level," used by 26 states, are the weighting factors most often employed. The 19 states checked for "teacher training or experience" indicate that this base is also frequently used.

Since the numbers above total more than 50, it is evident that some states use a combination of two or more of the factors indicated. The following list of items shows these combinations and their frequency.

Weighting factors included in the foundation program	*Number of states*
All three factors: (pupil grade level, school or district size, and teacher training or experience)	6
Two factors:	
Pupil grade level and school or district size	12
Pupil grade level and teacher training or experience	4
School or district size and teacher training or experience	5
One factor:	
Pupil grade level	4
School or district size	6
Teacher training or experience	4

Weighting factors named in Table 1 and summarized above are limited in that the items represent factors specifically identified in the state foundation programs. The tabulation is, of course, only as accurate and complete in these details as the contents of the state public-school finance program leaflets.

Pupil Grade Level as a Weighting Factor

Weighting values for pupil grade level, allowances which establish different state program amounts for elementary- and secondary-school pupils, are shown in Table 2. Kindergarten and junior-college grades, which are also weighted for inclusion in some foundation programs, are not included.

Table 2 data are in three different forms:

1. A fraction, as shown for Alabama, which indicates the number of pupils per teacher or classroom room unit, used by 21 states

2. A per-pupil amount, as shown for Arizona, used by 14 states
3. Pupil units, as shown for Arkansas, used by 13 states.

To arrive at a weighting value for the grade-level factors, program allowances based on pupil grade level were identified. A ratio of these allowances, the amount per high-school unit divided by the amount per elementary-school unit, produced the measure of relative weight for this factor. Column 4 of Table 2, "Ratio of high school to elementary," presents these weights. Values of 1.0 reported in Table 2, but not to be reported in Tables 3 or 4, indicate that the program units employed are not weighted for this factor.

Table 1.—Weighting Factors Used in State Foundation Programs for General Operating Program Purposes, by State, 1962-63

State	School or district size	Pupil grade level	Teacher training or experience	States using at least one of the preceding factors
1	2	3	4	5
Total	29+1*	26+1*	20+1*	41+3*
Alabama	X	X	X	X
Alaska	X	..	X	X
Arizona	..	..	..	..
Arkansas	X	X	..	X
California	X	X	..	X
Colorado	*	..	..	*
Connecticut	X	..	..	X
Delaware	..	X	X	X
Florida	X	..	X	X
Georgia	X	X	X	X
Hawaii	..	..	X	X
Idaho	X	X	X	X
Illinois		*	..	*
Indiana	..	X	X	X
Iowa	..	X	..	X
Kansas	X	X	..	X
Kentucky	X	..	X	X
Louisiana	X	X	X	X
Maine	X	X	..	X
Maryland	X	X	X	X
Massachusetts	..	..	..	..
Michigan	X	..	..	X
Minnesota	..	X	..	X
Mississippi	..	..	X	X
Missouri	..	..	*	*
Montana	X	X	..	X
Nebraska	..	..	..	..
Nevada	..	..	..	..
New Hampshire	..	X	..	X
New Jersey	..	..	..	..
New Mexico	X	X	..	X
New York	X	X	..	X
North Carolina	X	..	X	X
North Dakota	X	X	..	X
Ohio	..	..	X	X
Oklahoma	X	..	X	X
Oregon	X	X	..	X
Pennsylvania	X	X	..	X
Rhode Island	..	..	..	..
South Carolina	X	X	X	X
South Dakota	X	X	..	X
Tennessee	..	..	X	X
Texas	X	..	X	X
Utah	X	..	..	X
Vermont	X	..	..	X
Virginia	..	X	X	X
Washington	..	X	..	X
West Virginia	..	X	X	X
Wisconsin	X	X	..	X
Wyoming	X	..	..	X

*This factor is not used in the foundation program but is used in another state grant distribution.

Values of ratios for the 26 states identified as having a weight greater than 1.0 ranged from 1.071 to 2.286. There is a difference in the range and the median value of these ratio values that appears to be related to the form of the program unit. Programs based on the number of pupils per instructional unit have ratios, or weights, ranging from 1.071 to 1.364; programs based on pupil units have ratios ranging from 1.187 to 1.5; and programs based on specified amounts per pupil have ratios ranging from 1.210 to 2.286. Progressively higher medians (1.2, 1.31, and 1.476) are indicated for each of these categories, in the same order. The over-all median value for states having weighting ratios for pupil grade level, other than 1.0, is roughly 1.3.

School or District Size as a Weighting Factor

School or district size as a weighting factor is specified in the foundation programs of 29 states. Tables 3 and 4 list these states and show appropriate amounts. However, data are not included for New York, Oregon, Pennsylvania, and Utah since (a) the smallest size and largest size district allowances for New York qualify for the same 10 percent additional amount and produce a ratio of 1.0, and (b) the specific amounts for small schools in Oregon, Pennsylvania, and Utah are not identifiable. For the other 25 states, 21 re-

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flect this size factor at both the elementary- and high-school levels, 3 states use this factor at the high-school level only, and 1 state uses such a factor only at the elementary level.

Each of the 29 states for which school or district size weightings are indicated, except Wisconsin, have a value greater than 1.0 for the ratio of the small school or district allowance to the large school or district allowance. The smaller ratio for Wisconsin is based on the consideration that "basic" districts are typically smaller than "integrated" districts. However, the purpose in Wisconsin is far different from that of the other states—improved organization, not sparsity or density, is the weighting factor. For New York there is a large-city allowance which provides for a higher program level than that provided for the district immediately below this size category, but this is not directly shown in Tables 3 or 4 since the ratio of amounts from the smallest to the largest size categories for this state is 1.0.

For the states listed in Table 3, the value of the elementary ratio of allowances for small schools or districts divided by the allowances for the large units, column 4, ranged from .875 in Wisconsin to 3.4 in Vermont with a median of 1.5. Corresponding amounts for the high-school grades, reported in column 4 of Table 4, ranged from .786 in Wisconsin to 5.093 in California with a median of 1.6.

Teacher Training or Teaching Experience as a Weighting Factor

Among the 19 states identified in Tables 5 and 6 as using a weighting factor based on teacher training or experience, 14 used both training and experience, 3 used training only, and 2 used teaching experience only. Only degree-level teachers are considered in

Table 2.—State Foundation Program Allowances Based on Pupil Grade Level, by State, 1962-63 [a]

State	Elementary[b]	High school[b]	Ratio of high school to elementary
1	2	3	4
Alabama	1/31	1/28	1.11
Alaska	....	....	....
Arizona	$176	$176	1.0
Arkansas	1.0	1.2	1.2
California	$234[c]	$324[c]	1.38[c]
Colorado	1/25[d]	1/25[d]	1.0[d]
Connecticut	1.0	1.0	1.0
Delaware	1/25[e]	1/20[e]	1.25[e]
Florida	1.0	1.0	1.0
Georgia	1/30	1/25	1.2
Hawaii	1/31.8	1/31.8	1.0
Idaho	1/27	1/21	1.236
Illinois	$252[f]	$252[f]	1.0[f]
Indiana	1/32	1/28	1.143
Iowa	$120[g]	$170[g]	1.417[g]
Kansas	$97.50	$20[illegible]	2.288
Kentucky	1/27	1/27	1.0
Louisiana	1/30	1/25	1.20
Maine	$210	$310	1.476
Maryland	1/30	1/28	1.071
Massachusetts	$130	$130	1.0
Michigan	$224	$224	1.0
Minnesota	1.0	1.5	1.5
Mississippi	1/30	1/30	1.0
Missouri	$330	$130	1.0
Montana	$229.67	$277.97	1.210
Nebraska	1.0	1.0	1.0
Nevada	1.0	1.0	1.0
New Hampshire	$200	$300	1.5
New Jersey	$200	$200	1.0
New Mexico	1.0	1.33	1.33
New York	1.0	1.25	1.25
North Carolina	1/30	1/30	1.0
North Dakota	1.0	1.32	1.32
Ohio	1/30	1/30	1.0
Oklahoma	1/36	1/26	1.0
Oregon	1.0[h]	1.3[h]	1.3[h]
Pennsylvania	1/30	1/22	1.364
Rhode Island	$300[i]	$300[i]	1.0[i]
South Carolina	1/30	1/25	1.2
South Dakota	1/27.75	1/23.25	1.194
Tennessee	....	....	....
Texas	1/26	1/26	1.0
Utah	1/27[j]	1/27[j]	1.0[j]
Vermont	1.0	1.0	1.0
Virginia	1/30[k]	1/23[k]	1.304[k]
Washington	1.0	1.4	1.4
West Virginia	1.0	1.187	1.187
Wisconsin	$420[l]	$700[l]	1.667[l]
Wyoming	1/25	1/25	1.0

[a] Allowances are for school districts in the largest size category used in each state.

[b] Data are in one of three different forms: (a) a fraction showing pupils per teacher or classroom unit (b) a per-pupil amount, or (c) a weighted pupil unit.

[c] Alternate program is: elementary, $309; high school $404; high school/elementary=1.307.

[d] Separate additional allowance for small attendance centers.

[e] School expenditures other than teachers' salaries, pupil transportation, and debt service.

[f] Common School Fund, general aid portion: elementary, $47; high school, $32; high school/elementary=.68.

[g] Also fixed grant: elementary, .17; high school, .20; high school/elementary=1.17.

[h] Districts under 100 ADA: elementary teacher unit, $5,000; high school teacher unit $6,000; high school/elementary=1.2.

[i] Amount is required minimum.

[j] Other allowances.

[k] Data are for Teachers' Salaries Fund; Minimum Education Program Fund allows $225/ADA.

[l] Also for a separate flat-grant distribution: integrated district—Elementary ADM, $40; high-school ADM, $53; high school/elementary=1.325. Basic districts—elementary ADM, $30; high-school ADM, $40; high school/elementary=1.333.

Table 3.—State Foundation Program Allowances Based on District or School Size, Elementary Grade Level, by State, 1962-63

State	Large school or district[a]	Small school or district[a]	Ratio of small to large
1	2	3	4
Alabama	1/31	1/20	1.550
Alaska	$5,150[b]	$5,650[b]	1.097[b]
Arkansas	....	....	1.5
Colorado	c	c	c
Connecticut	$96	$161	1.677
Florida	1/27	1/17	1.588
Georgia	1/30	1/20	1.500
Idaho	1/27	1/16	1.688
Kansas	$87.50	$233.33	2.667
Kentucky	1/27	1/25	1.080
Louisiana	1/30	1/26	1.154
Maine	$210	$240	1.143
Michigan	$224	$240	1.071
Montana	$230	$425	1.848
New York	d	d	d
North Carolina	1/30	1/28.8	1.042
North Dakota	1.0	1.5	1.5
Oklahoma	1/26	1/25	1.040
Oregon	e	e	e
Pennsylvania	f	f	f
South Carolina	1/30	1/16	1.875
South Dakota	1/27.75	1/16.50	1.682
Texas	1/26	1/18	1.444
Utah	g	g	g
Vermont	$31	$105.40	3.400
Wisconsin	$420	$367.50	.875
Wyoming	1/25	1/10	2.5

[a] Data are in one of three different forms: (a) a fraction showing pupils per teacher or classroom unit (b) a per-pupil amount or (c) a weighted pupil unit.

[b] At least $500 is added to the annual salary allowances for teachers in schools outside incorporated areas; $5,150 is beginning salary for degree teacher.

[c] Separate additional allowance for small attendance centers.

[d] Amount is $550 for each of first 1,250 weighted pupils in ADA and for each large city weighted pupil in ADA; for units between these sizes the amount is $525 per weighted pupil in ADA.

[e] Districts under 100 ADA: elementary-school teacher unit $5,000; high-school teacher unit $6,000; $295 per weighted pupil for other districts.

[f] Units for small schools approved as necessary.

[g] Other allowances amounts not specified.

this tabulation. For this table, the master's degree level is the highest training level used. Amounts listed in columns 2, 3, 4, and 5 of Table 5 are either annual or monthly allowances as specified in the state programs except for Idaho, where a salary ratio is used. Minimum amounts shown are for beginning teachers at the noted training level, and maximum amounts are the amounts teachers must receive at the noted training level, in recognition of teaching experience.

Five different ratios have been calculated for Table 6, where data permitted, to describe the magnitude of teacher training and experience weights used in determining state foundation program amounts. Table 6 shows that teacher training ratios, columns 2 and 3, have a smaller range among the states than teacher experience ratios for teachers at the bachelor's degree level, column 4. The range in teacher experience ratios at the master's degree level is greater than the range in ratios for teacher training at the master's degree level, but less than the range in ratios for beginning teachers with the bachelor's degree. The training factor

Table 4.—State Foundation Program Allowances Based on District or School Size, High-School Grade Level, by State, 1962-63

State	Large school or district[a]	Small school or district[a]	Ratio of small to large
1	2	3	4
Alabama	1/28	1/20	1.4
Alaska	$5,150[b]	$5,650[b]	1.097[b]
Arkansas	....	....	1.7
California	$324	$1,650	5.093
Colorado	c	c	c
Connecticut	$96	$161	1.677
Florida	1/27	1/17	1.588
Georgia	1/25	1/15	1.667
Idaho	1/21	1/13	1.615
Kansas	$200	$400	2.000
Kentucky	1/27	1/25	1.080
Louisiana	1/25	1/17	1.471
Maine	$310	$405	1.306
Maryland	1/28	1/20	1.400
Michigan	$224	$240	1.071
Montana	$278	$546	1.964
New Mexico	1.33	2.50	1.880
New York	d	d	d
North Carolina	1/30	1/20	1.5
Oklahoma	1/26	1/18	1.444
Oregon	e	e	e
Pennsylvania	f	f	f
South Carolina	1/25	1/14.6	1.712
South Dakota	1/23.25	1/9.50	2.447
Texas	1/26	1/18	1.444
Utah	g	g	g
Vermont	$31	$105.40	3.400
Wisconsin	$700	$550	.786
Wyoming	1/25	1/10	2.5

[a] Data are in one of three different forms: (a) a fraction showing pupils per teacher or classroom unit (b) a per-pupil amount or (c) a weighted pupil unit.

[b] At least $500 is added to the annual salary allowances for teachers in schools outside incorporated areas; $5,150 is beginning salary for degree teacher.

[c] Separate additional allowance for small attendance centers.

[d] Amount is $550 for each of first 1,250 weighted pupils in ADA and for each large city weighted pupil in ADA; for units between these sizes the amount is $525 per weighted pupil in ADA.

[e] Districts under 100 ADA; elementary-school teacher unit, $5,000; high-school teacher unit $6,000; $295 per weighted pupil for other districts.

[f] Units for small schools approved as necessary.

[g] Other allowances amounts not specified.

Table 5.—State Foundation Program Salary Allowances Based on Teachers' College Preparation and Years of Teaching Experience, by State, 1962-63

State	Amount of state salary allowance			
	Beginning teachers (minimum)		Experienced teachers (maximum)	
	Bachelor's degree	Master's degree	Bachelor's degree	Master's degree
1	2	3	4	5
Alabama	$3,635	$4,210	.....	.....
Alaska	5,150[a]	5,500[a]	$6,350[a]	$7,900[a]
Delaware	4,200	4,800	6,200	6,800
Florida	3,600	4,050	4,200	4,650
Georgia	3,500	3,800	4,300	4,700
Hawaii	352[b]	389[b]	602[b]	664[b]
Idaho	1.00[c]	1.09[c]	1.44[c]	1.53[c]
Indiana	4,100	5,100	4,900	6,300
Kentucky	4,000	4,300	....	....
Louisiana	3,400	3,600	5,000	6,400
Maryland	3,600	3,600	5,700	5,700
Mississippi	2,900	3,175	3,400	3,675
Missouri	d	d	d	d
North Carolina	3,607	4,079	5,078	5,606
Ohio	4,400	4,850	....	....
Oklahoma	3,600	3,800	5,100	5,300
South Carolina	165[b]	321[b]	430[b]	486[b]
Tennessee	2,850	3,120	3,600	3,960
Texas	446	471	566	675
Virginia	3,300[e]	3,300[e]	4,650[e]	4,650[e]
West Virginia	260[b]	285[b]	338[b]	381[b]

[a] Add $500 per teacher in Southcentral Senate District; add $700 per teacher in Central and Northwest Senate District.

[b] Amount per month.

[c] State uses salary ratios.

[d] Factor not used in the foundation program, but another distribution provides $450 per teacher with a master's degree and $270 per teacher with a bachelor's degree.

[e] Data are for Teacher Salary Fund; Minimum Education Program Fund allows $224/ADA.

Table 6.—Ratios for Teacher Training and Experience for State Foundation Programs, by State, 1962-63

State	Master's to bachelor's degree allowance		Maximum to minimum allowance		Maximum master's to minimum bachelor's degree allowance
	For beginning teachers	Maximum experience	For bachelor's degree level	For master's degree level	
1	2	3	4	5	6
Alabama	1.158	....	1.0	1.0	1.158
Alaska	1.068	1.244	1.233	1.436	1.534
Delaware	1.095	1.065	1.476	1.435	1.571
Florida	1.125	1.107	1.167	1.148	1.292
Georgia	1.086	1.093	1.229	1.237	1.343
Hawaii	1.105	1.103	1.710	1.707	1.886
Idaho	1.09	1.063	1.44	1.404	1.53
Indiana	1.244	1.286	1.195	1.235	1.537
Kentucky	1.075	....	....	....	1.075
Louisiana	1.059	1.280	1.471	1.778	1.882
Maryland	1.0	1.0	1.583	1.583	1.583
Mississippi	1.095	1.081	1.172	1.157	1.267
Missouri	a	....	....	....	....
North Carolina	1.131	1.104	1.408	1.374	1.554
Ohio	1.102	....	....	....	1.102
Oklahoma	1.056	1.029	1.417	1.395	1.472
South Carolina	1.945	1.130	2.606	1.514	2.945
Tennessee	1.095	1.100	1.263	1.269	1.389
Texas	1.056	1.192	1.269	1.433	1.513
Virginia	1.0	1.0	1.409	1.409	1.409
West Virginia	1.096	1.127	1.300	1.337	1.465

[a] Factor not used in the foundation program but another distribution provides $450 per teacher with a master's degree and $270 per teacher with a bachelor's degree.

ratio for beginning teachers, exclusive of values of 1.0, ranges from 1.056 to 1.945 in column 2. For 10 of these 17 states, the ratio is an amount from 1.056 to 1.099. The median value in column 2 is 1.095. Ratios of amounts at the master's degree level for 14 states, but with maximum experience, column 3, range from 1.039 to 1.286, exclusive of values of 1.0. Here the median is 1.103.

Teacher experience ratios range from 1.167 to 2.606 for the bachelor's degree, column 4, and from 1.157 to 1.778 for the master's degree, column 5. Median ratios for experience for both the bachelor's and master's degree are, for all practical purposes, the same, about 1.4. When training and experience are considered together, column 6, the range of the ratio increases, 1.158 to 2.945, and the median for the 17 states becomes 1.534.

Other Weighting Factors

The preceding discussion was limited to a summarization of foundation program weighting factors used to support the general operating program. This is the area of consideration most fruitful for analysis and comparison because it applies to most of the states. However, as you know, foundation programs have been constructed to meet special as well as general program requirements. To the extent that such additional requirements are specified there is an additional weighting.

Examination of the state foundation programs shows that special allowances are included for pupil transportation in 21 state programs, for administration and supervision in 16 states, for special education in 14 states, and for vocational education in 12 states. Amounts for capital outlay or debt service and for growth in the number of pupils are each specified in 4 states. Of course, numerous state foundation programs include an item for "other current expenses."

Many other specific items are included in foundation programs but not with any great frequency. Some of these other item amounts are for contingencies and to correct obvious inequities in the state distribution formula, salaries of employed personnel other than the instructional staff, extended term of employment, contributions to retirement systems, school libraries, health services, instructional supplies, and clerical assistance.

But the names of these special purposes for which additional allowances are sometimes included in a foundation program tend to identify many of the separate state grant distributions which function outside the foundation program. It is because of this fact, the fact that a full consideration of such other weighting factors cannot be fully and adequately considered in the limited sphere of the foundation program, that such factors are not included in this report.

As a concluding thought, let me call your attention to the fact that the tabular material shows significant program amounts. Based on this fact it appears appropriate to suggest that the applicability and acceptability of weights for state foundation programs probably depends on the kind of state aid package state legislators and residents find most appealing and are willing to support.

Evaluating the Weighting Factors in Use

Eugene P. McLoone

THERE ARE THREE major types of weights: those associated with differences among grade levels, those associated with school district size, and those associated with the training and experience of teachers. The first two—for grade level and district size—reflect real or supposed differences in cost among kindergarten, elementary, secondary, and junior-college programs as well as differences in cost arising from sparsity of school population. The third factor, the allowance for the training and experience of teachers, could be considered as either an allowance for differences in cost or the encouragement of increased quality education.

Although not as amenable to tabular presentation as the three factors mentioned above, some other factors of state distributions are considered because they are as important or more important in determining allotments to school districts. The weighting factors are evaluated in terms of the goal of equity usually set for the state distributions, that is, the equal treatment of equals which can be called horizontal equity and the unequal treatment of unequals which can be called vertical equity.

Equal Education Opportunity

The goal of equal educational opportunity for all pupils within a state to achieve both vertical and horizontal equity was translated into equal resources for each pupil which, in turn, became a fixed dollar amount per pupil in the foundation program or, in the words of Dr. Erick Lindman, the jointly financed mandated program. There was recognition that not all costs varied directly with numbers of pupils and that some costs were controllable by local boards of education while others were beyond their control. Too little is known about fixed, semivariable, and variable cost in terms of number of pupils in a school or a school system and about which costs are controllable by local boards and which are not.

Today to achieve both vertical and horizontal equity, equal educational opportunity for a pupil to develop to his full potential means a different dollar amount per pupil, that is, resources in whatever amount it takes to overcome environmental (socioeconomic) differences among pupils. This recognizes that every pupil, irrespective of native ability or intelligence and the differences these make among pupils, comes

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to school with a broader or more limited horizon. The difference may be in motivation, preparation for learning in school, verbalization, or similar characteristics, but this difference is one that added resources can or will help alleviate or will overcome.

This has been the tenor of many special projects of the Ford Foundation in the large cities, of undertakings like High Horizons and the Wilmington project, and of the Elementary and Secondary Education Act of 1965. Sputnik and the public reaction to it which led to NDEA on the national level and similar activity on state and local levels also called for more resources within the educational budget in areas of special concern—not only for subjects like science and mathematics but also for groups of pupils like the gifted. These tasks call for unequal resources per pupil within a school district, but not necessarily between school districts. For maximum effectiveness of varied resources per pupil within districts, equalization between school districts remains important.

Even when school finance specialists sought equal dollar amounts per pupil, the higher cost of high schools compared with elementary schools was recognized, as were the higher costs of vocational courses and education for the handicapped.[1] Although special needs and concerns are not new, both the type of service and the type of pupil requiring more funds are. The issue arising is that an equal dollar amount per pupil does not necessarily mean equality of educational opportunity. Therefore, the purpose of weighting a measure of need becomes not so much allowances for costs which are easily measured and which result from such identifiable physical differences of geography as sparsity of population, road conditions, and bus miles in transportation, but also the establishment of the dollar amount to assure each child the resources in teachers, instructional material, supplementary personnel, and organization which that child needs to overcome the elements of his milieu. Tentatively, the old question of whether heredity or milieu determines IQ is put aside by saying the detrimental influence of the milieu must be removed.

Traditional Grant Program

Consideration is given in this article though, only to weightings in the fixed dollar program with its measure of need, an amount per unit of need and the local contribution rate applied to a measure of local capacity: traditionally expressed as $A_i = uN_i - {}_rC_i$, where

A_i=dollar amount of state aid in "ith" school district

u =dollar amount per unit of need

N_i=number of units of need in "ith" district

$_r$ =local contribution rate required for participation

C_i=dollar amount of capacity in "ith" school district.

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[1] Weighting factors for difference in cost between elementary and secondary schools presently show the division of professional thought. Twenty-four states provide the same amount or the same pupil-teacher ratio for both elementary- and secondary-school pupils, yet 26 states provide a differential for secondary schools over elementary. Data collected for the 1959-60 school year by Dr. Forrest W. Harrison and the author show that nationwide pupil-teacher ratios are smaller in secondary than in elementary schools (22 pupils versus 26 pupils) and that teacher salaries are about 9 percent higher in secondary than in elementary schools. Similar results have prevailed since 1930 in all such national studies. This, however, does not answer the question, *Should* such differentials exist? It merely says that they *do*. Almost no research on this topic exists, and it is impossible to say which is preferable: weighting secondary-school pupils more than elementary or like treatment of both. While it is true that more is spent on secondary schools than on elementary because of elective and structural considerations, the assumption that high schools necessarily cost more is not valid. Better results, at the elementary-school level may be accomplished if the same amount per pupil were spent in elementary schools as is now spent in high schools.

A truism of the gospel by Mort and his disciples says that the dollar amount specified per unit of need, u, should be derived from the cost of desirable services for each child in all the school districts of the state. Much talk and much writing have dwelt on this need. To my knowledge, only a few studies have attempted to spell out the cost of desirable services.[2] In most cases, the amount per unit of need has been a practical question for legislative consideration, and like most questions has been answered in a manner to meet the requirements of the situation and not in a fashion to satisfy the pure theorist. What happened is what happens everyday with administrators—a rule of thumb was adopted. A topnotch administrator, a friend of mine, says, "Administration is the art of making decisions without the facts"; and he adds, "Research is gathering all the facts without making any decisions."

The rule of thumb became (a) the amount per pupil spent by the district of average wealth, in symbols: districts where $C_i/N_i = \Sigma\, C_i/\Sigma\, N_i$; (b) the median expenditure per weighted pupil or classroom unit, and (c) the average salary of a beginning teacher with an added allowance for costs other than teacher salaries. No one waited for the listing of services these dollar amounts would buy. However, common sense told Mort and his disciples, legislators, and local school officials that some allowances had to be made to treat equals alike, horizontal equity, and unequals differently, vertical equity. From this the need for weightings like those in today's finance plans obtains.

Why Weights?

The intention of weighting is to account for differences in costs, especially those costs beyond the control of a local school board. This is true of a weighting for secondary-school pupils. However, such a weighting would have little effect if every school district had the same percentage of secondary pupils. Every district would have the same share of total state funds with or without the weighting. If, as happens because of weighting, secondary-school pupils are weighted at a higher dollar amount than elementary-school pupils, the division of funds is shifted between the state and the localities. The state's share of the foundation program and the total foundation program amount increase. Thus, the purpose of weights on the measure of need is to discriminate among school districts because the attribute being weighted varies among school districts, or to shift the division of support between the state and the localities as a group by increasing the cost of the foundation program without affecting the required local contribution. Without this basis, the complexity of weighting in grant formulas need not be introduced.

Concepts of Equalization

Since writers on school finance use the concept of equalization variously, the different concepts are briefly considered here. In the first and traditional concept, the essential goal of state grant distribution is the equalization of financial resources per child (a fixed dollar amount) at a fixed local contribution rate on local wealth. The state contributes the difference between amount per child raised locally and defined foundation amount. This traditional definition meets two conditions: equalization by district of the dollar amount per child, u, and the local contribution rate, r. Nothing else is equalized. If the weights applied to the measure of need, n, take into account real differences in cost of educational services, both vertical and horizontal equity are achieved up to the amount per unit of need, u. Beyond u, the variations in local ability make for great differences.[3] Thus, the percentage that u is of average per-pupil expenditure becomes crucial in the program offered and its effects.

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[2] California Association of School Administrators. *Financial Support of the Public Schools in California.* Research in Administration, No. 3. Pasadena: the Association, 1951. 40 p.

Harbo, Alf; Hall, Howard C.; and Lokken, Harry M. *A Foundation Program of Minnesota Schools.* Research Project No. 13. St. Paul: Minnesota State Department of Education, 1959. p. 34.

Sargent, Cyril B. "The Relation of Educational Services to State School Fiscal Policy." *Harvard Educational Review* 19: 121-23; March 1949. Abstract of Doctoral Dissertation, Harvard University, 1947.

The second concept of equalization views a fixed flat grant, in symbols, $A_i = uN_i$, as providing some equalization since the more wealthy districts contribute more funds when state funds are raised proportionate to wealth. Only the dollar amount per child, u, is equalized by district. Again up to this dollar amount both horizontal and vertical equity are achieved if real differences in cost of educating pupils are taken into account.

This concept of equalization introduces the redistribution of funds through grants from the state to local districts and, in symbols, is stated: $A_i = uN_i$ is now distributed as r_sB_i, where the new terms are:

r_s is rate of state tax and

B_i is base of state tax.

The rate of state tax, r_s, is that needed to raise all funds distributed to local school districts. Thus, the gaining and losing districts, considering the state tax, are determined for a flat grant as: $A_i = uN_i - r_sB_i$ and for an equalization grant as: $A_i = uN_i - rC_i - r_sB_i$. However, A_i represents both payments from and to the state because ΣA_i must equal zero. When a district has a negative value for A_i, it pays the state and only when it has a positive values does it receive a grant. This redistribution aspect generally has been neglected in discussions of state grants to local school systems. The operation of redistribution of funds deserves analysis for modifications such analysis could suggest in granting state funds. A statement, such as "fixed flat grants provide some equalization," merely allude to it. Statements about the failure of grant programs to equalize the *total* tax burden do likewise.

This latter statement leads to a third meaning for equalization. Often some persons criticize state grants for not equalizing the property tax burden. Usually these persons are speaking of total property tax rates for schools, including the leeway levies beyond the local contribution rate. Nevertheless, it is not too clear what is implied, whether equalization of tax burdens by *school districts* or *individuals*. Others speak as if they mean the total tax burden for schools to include both property and other taxes while still others merely imply the state and local tax burden of the foundation program. Each of these goals for equalizing tax burdens and their combination calls for a different concept and type of state distribution.[4] The evaluation here is limited to the first and traditional sense of equalization. The other concepts are valid, but do hinder the precision of analysis when mixed with the first.

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[3] Benson, Charles S. "Fiscal Incentives in State Aid Provisions," p. 51-55 of this volume.

[4] For a more nearly complete description of this difference and the redistribution effects of state grants to local schools, see: Musgrave, Richard A. "Approaches to a Fiscal Theory of Political Federalism." *Public Finances: Needs, Sources, and Utilization*. A Conference of the Universities-National Bureau, Committee for Economic Research. Princeton: Princeton University Press, 1961. p. 97-133.

Strict Equalization

An equalized apportionment formula, $A_i = u\Sigma N_i\ (I_n = \bar{p}\ I_c)$,[5] or an open-end percentage grant in the words of Dr. Benson[6] composed of $u\Sigma N_i$ which gives the dollar amount of the program and the term in parentheses which is the apportionment index is comparable to the traditional formula, $A_i = uN_i - rC_i$, where new terms are:

$\Sigma N_i =$ sum of units of need in all school districts in the state

$I_n = \frac{N_i}{\Sigma N_i} =$ percent of total need in the "ith" school district

$p = \frac{r\Sigma C_i}{u\Sigma N_i} =$ percent of total funds from local districts where r equals local contribution rate and C_i equals sum of local capacity in all school districts in the state; for instance, 40 percent from the state leaves 60 percent from local districts as $\bar{p}$

$I_c = \frac{C_i}{\Sigma C_i} =$ percent of total capacity in the state in "ith" school district.

The truth of previous statements on weights follows from this apportionment index. The relative position of a school district changes only as I_n increases; so a weighting needs to discriminate among school districts to be effective. If the total units if need increase, as with higher weighting for secondary over elementary, the denominator, $u\Sigma N_i$, becomes larger and the fraction smaller, with $\bar{p}$ decreasing. A greater portion of foundation support is shifted to the state. If this percentage apportionment index is used, the amount of state funds appropriated needs to equal the amount of $u\Sigma N_i$ used to determine r and $\bar{p}$. If appropriations do not, the amount of the flat grant increases at the expense of equalization. A smaller state appropriation not only does less for all districts but also equalizes for fewer districts.

For any given amount per unit of need, a unique $\bar{p}$ yields the point of *strict* equalization. The percentage of funds from the state under the equalization formula is determined by the inequality of resources in the state among districts when the local contribution rate is set so that the wealthiest district receives no funds.[7] A rate below this level gives a flat grant to all districts equal to the amount received by the wealthiest district.[8] Strictly speaking, only the funds beyond the flat grant received by all districts is used for equalization. In other words, the amount per unit of need, u, is often composed of a flat-grant portion, u′, and an equalizing portion, u″.

Within the limits of data available, such mixed flat-grant and equalization programs exist in all states except Idaho and New Hampshire. Some states, such as California, Illinois, and Wisconsin, make the flat grant explicit by providing a separate distribution. Most states have these two components in a single distribution. For instance, Florida provided 59.6 percent of all state and local funds for public elementary and secondary schools in 1959-60, whereas only 42.6 percent would have been needed to achieve strict equalization. The remainder of the funds is a flat grant. The flat-grant portion in Florida is a special type because the measure of need is weighted by teacher salary allowances. Thus, the flat grant varies as local districts are willing to raise funds locally to obtain teachers with training and experience higher than the average in the state. It is a variable flat grant. In the broad sense, the term *weights* is used where these relationships deserve attention.

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[5] Cornell, Francis G. "Grant-in-Aid Apportionment Formulas." *Journal of the American Statistical Association* 42: 92-104; March 1947. See equation 7 on page 97.

[6] Benson, Charles S., *op. cit.*

[7] Benson, Charles S. *The Economics of Public Education.* Boston: Houghton Mifflin Co., p. 206.

[8] Cornell, Francis G., *op. cit.*

Other Aspects of Weighting

It would be well to compare the total foundation program amount, u, the flat-grant portion, u′, and the equalizing portion, u″. The relationship of the measure of need to the measure of ability is crucial in terms of the equalizing portion, u″, and the effect of different measures of ability are lessened not only by the measure of need but also by the flat-grant portion, u′. Methods of prorating funds whenever insufficient state funds are appropriated for fully financing the formula affects these relationships. The various distributions forming part of the total state support program and their relationships to the total program also affect these relationships. The district organization in a state—separate elementary and secondary distributions are a necessity in California and Illinois, for example—and the existence of a large center, or several centers, with a disproportionate percentage of the total pupils or wealth in a state affect weightings. The relationship of the amount per unit of need, u, to the state-wide average current expenditures per pupil in average daily attendance is crucial, for the poor districts often spend no more than the jointly financed mandated program, u. Implicit in the analysis is a u close to average per-pupil expenditures. Some of these aspects are considered briefly, but attention is devoted mainly to salary allowances for training and experience of teachers.

Why Salary Allowances?

Teacher salary schedules as part of foundation programs have generated much controversy. Pure theorists say wealthier districts hire the best trained and most experienced teachers and the opposite holds for the poorer districts.[9] Thus, such allowances as weights for training and experience go against equalization, i.e., a higher program is provided for the more able than the less able districts. Theorists maintain that low wealth districts can compete with the richer districts only by greater effort. Yet more states continue to adopt such salary allowances each year. In 1951, the author learned that a salary schedule did not mean too much of a departure from equalization for Arkansas.[10] The gain in such provisions was mainly the psychological effect on those concerned with the low level of the salaries of teachers. It seemed that something must be wrong with the theory, and it turned out that many professors and theorists were neglecting some political realities.

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[9] Arkansas Legislative Council, Special Education Survey. *A Survey of Public Education, Arkansas.* Little Rock: the Council, December 1952. 139 p.

Munse, Albert R., and McLoone, Eugene P. *Public School Finance Programs of the United States, 1957-58.* U.S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 33. Washington, D.C.: Government Printing Office, 1960. 275 p.

Salary schedules treat each year of experience as advancement, and thus there is no differentiation between a teacher with 30 years of progressively better experience and one with 30 years of the same initial year experience. It would seem that local boards and superintendents would make such differentiations so that number of years of experience would not necessarily be the determining variable in hiring a new teacher.

[10] The weighting in their 1951 law provides for a teacher with a master's degree to receive 1.75 times the salary of the least trained teacher, one with an emergency certificate. The ratio between highest and lowest school districts, however, was only 1.22 to 1. The state-wide average provided $2,760 per teacher. Of the top 45 percent of classroom units in wealth 8 out of 9 had a program above this level. The lower 55 percent of classroom units in wealth were all below state average programs, but the least wealthy did not have the lowest salary allowance; it had a program of $2,700 per teacher. McLoone, Eugene P. *Improving the Foundation Program of Arkansas Schools.* A thesis presented to the faculty of the Graduate College, University of Denver, 1952. 173 p.

Legislators are realists. With salary allowances, they saw the funds increasing the quality of education or they could say to Miss Jones, "I voted you that $200 salary increase; I wish it could have been more because you deserve it." Visible returns for the money spent are necessary for a man whose principal aim is re-election. Neither he nor his constituents are served by failure at the polls.

The general outline of salary allowances serves local school officials in establishing salary schedules. Also, the have's, i.e., teachers with more training and experience, while not necessarily more numerous than the have not's are generally more influential, and exert a strong influence in getting more of the limited state funds. Naturally administrators side with the have's. Who does not want more funds for his school district and for his own salary? The level of teachers' salaries generally establishes the level of administrative salaries. Without such local support, the legislators would not be able to maintain their positions. Local advocates of a weight are needed for its preservation. Nonetheless, pure self-interest is not enough either to establish or to maintain a weight. The weight needs to fulfill an objective—be acceptable to almost all. Salary allowances do this and so exist despite the theorist.

The objective of state support can be (a) to equalize financial resources among school districts, (b) to provide tax relief for local taxpayers, (c) to stimulate local schools either to initiate new district services or to increase the level of existing services, and (d) to assist school districts in meeting state-mandated demands. Teacher salary allowances could be justified for all four objectives; more adequately on some and less adequately on others. In addition, these allowances provide both horizontal and vertical equity in the payment of teachers.

Equity of Salary Allowances

Under salary allowances based on years of experience and training, teachers with the same training and experience are treated alike and important differences among teachers in training and experience are treated differently. This achievement is played up, and its effect of paying no attention to horizontal and vertical equity of pupils is ignored. The teacher salary allowance definitely provides horizontal equity among school districts and may provide vertical equity. All school districts with teachers of the same training and experience are treated alike, but differences in training and experience may be treated in favor of some districts, i.e., the more wealthy. The crucial element in providing vertical equity arises from the place such weightings play in the over-all state aid plan.

The largest ratio between the minimum salary for a beginning teacher with a B.A. and an M.A. teacher with maximum experience is 2.95; the dollar difference is $321 ($486 minus $165) per month.[11] Considering the local contribution rate and the difference in fiscal capacity, the degree to which such allowances deviate from vertical equity can be evaluated. Recall that weights discriminate so that systems having teachers with above-average training and experience gain; and those below, lose. The average have the same position with or without salary allowances. Salary allowances change the percentage of need only for those districts which deviate from the average.

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[11] See: Munce, Albert R. "Weighting Factors in State Foundation Programs," p. 56-62 of this volume.

Effect of Salary Allowances

To spell out these conditions, consider six hypothetical districts with the data presented in tabular form. No assumption about the operation of a salary allowance is made; the facts are portrayed to show how such weightings operate in almost all states with a salary allowance.[12] Since the local contribution rate, r, is established by law, this rate times the local capacity, ${}_rC_l$, raises a determined amount of funds, which fixed amount, and it alone, is required for participation by a district in the state grant regardless of the level of the foundation program determined by salary allowances.

Table 1.—Percentage of Funds Furnished by the Local School District and the State at *Minimum* and *Maximum* Levels of Salary Schedules

District	Minimum		Maximum (twice minimum)	
	Local	State	Local	State
1	2	3	4	5
A	10.0%	90.0%	05.0%	95.0%
B	25.0	75.0	12.5	87.5
C	50.0	50.0	25.0	75.0
D	75.0	25.0	37.5	62.5
E	90.0	10.0	45.0	55.0
F	100.0	0	60.0	40.0

In Table 1 and succeeding tables, the school districts are ranked according to wealth per pupil from low, A, to high, F. For the minimum program, a B.A. teacher with no experience, strict equalization is operating, i.e., the wealthiest district receives no funds. If the maximum salary and training allowance for teachers' salaries is twice the minimum allowance, the local share required at the maximum as a percentage of the total is one-half of the percentage at the minimum. The variations in percentage (columns 4 and 5 for District F) arise because the required local tax rate raises more than the minimum program but not more than maximum. Only the foundation amount, and not the total expenditures of local schools, is considered. Whether the local school qualified for the minimum or maximum salary allowance, it needs to raise only a specified number of dollars as determined by ${}_rC_l$, and called here "direct" local effort.

Applying the percentages to a dollar amount per pupil shows the fixed "direct" local contribution as ${}_rC_l$ remains the same as the supported program increases (Table 2). All payments above $600, the point where the wealthiest school district receives no payment, constitute a flat grant to all districts, i.e., all districts receive a flat grant of $400 per pupil if the maximum program is achieved (Table 3).

The effect of salary allowances on increasing the state's share of the foundation program shows in the state providing 40.3 percent of total funds for the $500 per-pupil program; 48.6 percent for the $600 program; and 69.2

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[12] Almost all state grant programs with salary allowances fall into one of two types; they either (a) provide funds only for the salaries of the teachers or (b) use a percentage or dollar allowances which is added to the salary allowance to determine the total foundation program.

Either condition can prevail for the examples. If funds are provided only for salaries of teachers, the percentage of total current funds for salaries increases as all new funds are assumed to go toward increasing the training and experience of teachers until the maximum is reached. When it is reached, the district can revert to its previous budget distribution between funds for salaries of teachers and other expenditures. The dollar allowance operates the same.

Alternatively, if a specified percentage for other than teachers' salaries is provided by the state support law and assumed throughout, training and experience of teachers increase proportionately with total funds. The assumption that all new funds, or the proportionate share of new funds, are used to increase the training and experience of teachers is made for simplicity of presentation, and because such events are considered likely due to both the premium paid for, and the manner of operation of such allowances.

Tables for the more complex and varied circumstances could be presented; however, such tables are not necessary since these more complex circumstances merely alter the time span required to achieve the maximum allotments.

Table 2.—Amount of Funds per Pupil by Governmental Source at Minimum and Maximum Levels of Salary Schedule, $500 and $1,000 Programs

District	Minimum ($500 per pupil)		Maximum ($1,000 per pupil) (twice minimum)		State payment above minimum
	Local	State	Local	State	
1	2	3	4	5	6
A	$ 50	$ 450	$ 50	$ 950	$500
B	125	375	125	875	500
C	250	250	250	750	500
D	375	125	375	625	500
E	450	50	450	550	500
F	600	0	600	400	400
State total	1,850	1,250	1,850	4,150	...
Percent of total	59.7%	40.3%	30.8%	69.2%	...

percent for the $1,000 program. The percentage of total funds that is equalizing declines after reaching a maximum of 48.6 percent when the local contribution rate produces a zero grant to the wealthiest district, F. Only 29.9 percent of total funds are equalizing at the $1,000 per-pupil program. Conversely, the percentage of total funds that is a flat grant increases from 0 percent at $600 per-pupil program to 40 percent at the $1,000 per-pupil program. Likewise, the percentage of funds from local sources declines continuously from almost 60 percent for the $500 per-pupil program to almost 31 percent for the $1,000 per-pupil program.

Increased Indirect Effort

Under either the simple circumstances presented or the more complex circumstances referred to in footnote 12, the requirement in salary allowances for an increased local effort to reach the maximum allowance per pupil prevails. This is the catch. Although the "direct" required local effort, ${}_{r}C_{1}$, does not change as a district progresses from the minimum to the maximum salary allowance, the "indirect" required funds do. Since the local school district must first attract teachers with the training and experience, and since only local funds are available for this, the difference between the $1,000 and the $500 per-pupil program needs to be first raised locally. The local funds required for this purpose are termed "indirect" required funds.

Since neither the local contribution rate nor the "direct" required local funds increase as a district qualifies for a higher foundation level, the better

Table 3.—Amount of Local and State Funds as Equalization and Flat Grants at $600, the Point of Equalization, and at Maximum Level of Salary Schedule

District	Local	Equalization level, $600 per pupil state equalization	Flat grant	Maximum $1,000 per pupil		
				Local	State equalization	State flat grant
1	2	3	4	5	6	7
A	$ 50	$ 550	0	$ 50	$ 550	$ 400
B	125	475	0	125	475	400
C	250	350	0	250	350	400
D	375	225	0	375	225	400
E	450	150	0	450	150	400
F	600	0	0	600	0	400
State total	1,850	1,750		1,850	1,750	2,400
Percent of total	51.4%	48.6%		30.8%	29.2%	40.0%
					69.2%	

Table 4.—Total, Direct, and Indirect Local Effort per Pupil Required to Reach Maximum Allowance

District	Amount			Ratio of indirect effort at maximum to direct effort
	Total	Direct	Indirect	
1	2	3	4	5
A	$ 500	$ 50	$ 500	10.00
B	625	125	500	4.00
C	750	250	500	2.00
D	875	375	500	1.33
E	950	450	500	1.11
F	1,000	600	400	.66

The total local effort required is the $1,000 per-pupil program minus state aid at the minimum salary allowance program of $500. "Direct" local effort is specified by law as rCI. "Indirect" local effort is the difference between total local effort and "direct" local effort for maximum $1,000 per-pupil program.

quality program is borne entirely by the state and its percentage of total funds increases. Thus, the state sets the improving of the quality of the teaching staff as a goal for local districts. However, only when the local district first makes the effort on its own to attract the teachers with the maximum training and experience, i.e., when the district makes the "indirect" required local effort, can this be achieved. No district reaches the top program of $1,000 per pupil until it attracts the qualified teachers.

The wealthiest district, F, by a two-thirds increase in its required foundation or "direct" effort can achieve this goal; but the least wealthy district, A, needs to make 10 times its "direct" effort. Or looked at as a gradual process over a period of years, one year of an additional two-thirds of its "direct" effort gets District F to its maximum grant; and one year of double effort and another of slightly above the required effort gets District E to its maximum grant. If District A levied each and every year twice its "direct" effort, $100 per pupil instead of $50 per pupil, 10 years would be required for District A to reach the maximum grant; four years for District B; two for C; and little more than one for D.

Altering Conditions

Since each district has a staffing pattern of teachers with a given experience and training when the program begins, every district is not starting from the bottom as assumed above. Each qualifies at various steps on the salary schedule; thus, the districts which made the greatest effort previously in relation to their wealth stand to gain more immediately and can progress toward the maximum faster.

Alternatively, the level at which the state sets the foundation program can affect the number of years required to reach the maximum allowance. If the state provides a $600 per-pupil program instead of a $500 one so that the point of equalization is reached immediately, the $100 additional state funds per pupil permit District A to reach the maximum a year sooner. Yet little is achieved for the other districts. If the level were set and funds provided so that all districts received the flat grant of $400 initially, all districts would be equal and at the maximum immediately. The larger the flat grant written into the program, the more the poorer districts are helped under a scheme of salary allowances and the less effect such weights have.[13] However, in this latter case, from an overall standpoint, salary allowances would be less desirable than a percentage grant, as in effect it has become a fixed dollar program with all the advantages and disadvantages of that type of grant.

In a similar manner if the only districts in the state were C, D, E, and F, initially the state would provide 21 percent for the $500 program and 58 percent for the maximum $1,000 program.

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[13] This is not true in the examples which start with a strict equalization of $600 per pupil, but this fact is true in almost all states in that there is a flat grant and equalization grant in a single distribution, for example, Florida.

By doubling their local effort *all districts could reach the goal in three years or less.* Salary weightings would not be as prohibitive. Thus, salary weightings may or may not go against vertical equity among school districts. Much depends on the variation in ability among school districts within the state, the amount of the flat grant in the initial formula, and the distribution of teachers by training and experience among school districts which in turn depends on both the previous state aid plan and previous local effort but which later depends only on local effort.

Methods To Test Effect of Salary Allowances

All these considerations show the simple empirical evidence that the distribution of teachers by training and experience is not related to wealth (a fact that can be found in some states) i.e., state grant formulas containing salary schedules do not necessarily discriminate, can be correct for any point in time in some states. The crucial question is, How did these results come about? From the program maintaining a previously existing uneven distribution of teachers by training and experience? Or from wide disparities in the teacher distribution caused by the program of state aid? Or from the poorer districts making greater effort over a period of years? These questions are subject to empirical testing. Such an examination may lead to more careful specifications of conditions under which allowances for training and experience are desirable, less desirable, or unwarranted, as the case may be. Much depends on the political conditions, the district organization, the distribution of wealth among school districts, and the goal of the state aid program.

When persons speak of equal resources per child as the goal of state aid, salary weightings can fail miserably to achieve it under certain conditions. In states with many small districts, the goal of equalization may be more elusive than it is in states with relatively few districts and a high percentage of funds from the state where such a goal can be achieved.

When the state provides a small percentage of funds, the effects of salary schedules are not so clear. If these states give aid to all districts, they will tend to have a flat-grant portion in their equalization program anyway and a salary allowance merely increases it. Since horizontal and vertical equity is maintained among all school districts on the same step of the schedule, i.e., all such districts receive the same amount per pupil from the state at a uniform effort, this type of flat grant is preferable to the more general type that merely places more funds in all districts with no regard to effort.

The net result is the same at each step of the schedule and at the maximum. However, the possibility of poorer districts moving upward by more local effort, in the author's judgment, makes this type of weighting more desirable than the usual flat grant which stays fixed and does not vary with local effort, but not as desirable as the newer development in states like Wisconsin, Rhode Island, and New York where the state shares with the locality in the increased program. Depending on the goal or purpose of state support, salary allowances may be more desirable than these newer programs.

Constant State-Local Share

In the salary schedule allowance in existing state programs, if the local district increases its effort, it receives more state aid; and this continues as long as all state money is spent on salaries and the local effort above "direct" local funds for this purpose is maintained. When the local district reaches the maximum, it can revert to the required "direct" local contribution rate for salaries. Some fixed grants, especially those with salary allowances, do provide assistance to local units. At and beyond the maximum u allowed, conditions stated by Benson prevail. In the newer programs, as the local contribution is proportionately increased. state aid increases. But each upward or downward change in the local contribution affects state aid and the total program. The formula freezes a pattern of state and local contributions. In the salary allowances, the proportion of state aid increases to a maximum as local districts make greater effort. Those who look for more and more funds to come from the state and wish the percentage to increase should prefer the salary allowances. Those who wish a stable percentage of funds from the state should desire the newer programs. The choice, however, is not that simple.

Many conditions can affect the goal of stable shares for state and local governments in a foundation program, i.e., a constant distribution pattern so each contributes the same percentage of total funds over a period of years. Responsiveness of tax yields to economic conditions affects such a goal.[14] When the taxes used by each level of government respond differently to economic conditions, i.e., when the elasticity of revenue yield of each tax is different, there is a commitment to increase the rate of the less elastic taxes. It is generally accepted that the property tax is the least elastic; then sales taxes; and finally, the income tax. Since local revenue is mainly from the property tax and state revenue from sales or income taxes, during periods of economic growth if constant shares are maintained there is a commitment for increasing the rates of the property tax while permitting decreases in the rates of either sales or income taxes. Thus, the newer programs generally call for a greater commitment to the property tax and increasing its rate. On the other hand, the use of the salary schedule allowances could mean shifting a larger percentage to the more responsive revenue sources of state governments. These considerations divide persons into those who would increase property tax rates and those who would maintain them at a certain level. Since the advocates of a higher percentage from the state usually want to relieve property of its burden and reduce rates, and since constant-share advocates desire to maintain constant property tax rates, the matching of a percentage goal for the state and a property tax goal is not achieved.

It is in the balancing of these considerations and those of the school districts of the state that a choice needs to be made. A simple choice is not possible once and for all. Constant reevaluation is needed. Structural changes in how funds are raised for schools and conceptual changes in thinking are necessary so as not to be caught in such dilemmas.[15] The question, Where are funds to come from? should be separated into two questions: Which government, state or local? Which taxes, property, sales, or income?

Wisconsin partially solves this dilemma by setting a minimum and a maximum local property tax rate (property tax rate and not local contribution rate is used because, as Lindman says, it is important to have people see the choice as one between property and other taxes and not as one between state or local funds). The constant share goal is maintained within a range of local property tax rates. Above this range, the local district must bear all expenditures from local property taxes until a maximum rate is reached. Above this point, the state provides all the funds needed in special cases.

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[14] McLoone, Eugene P. *Effects of Tax Elasticities on the Financial Support of Education.* (Doctor's thesis.) Urbana: University of Illinois, 1961. 158 p.

[15] McLoone, Eugene P. "Flexibility in Local Support of the Schools: A Proposal." *School Life* 44: 5-7; May 1962.

Proration of Grant Funds

Requirements for more state funds arise in salary allowances because such a weight shifts a larger percentage of the foundation program to the state as the program amount progresses from the minimum to the maximum allowance. Similar requirements for more state funds arise in the newer programs which maintain the same percentage from state and local sources as the total program supported increases. As local effort increases, the amount raised locally naturally increases, but also state funds necessarily increase to match the local increases. Both increase at the same percentage over the minimum. In this respect, these newer programs are an "open-end" or percentage distribution in that they require, rather than a determined fixed dollar amount from the state, an amount which varies according to local effort. In these cases, the amount of funds appropriated can act as a weight on the distribution among school districts especially when supplementary appropriations are not made to provide *all* funds required by the distribution formula. For percentage grants, this indicates the requirement to set $\overline{p}$ at the point of equalization because as the local contribution rate increases, both the flat grant and the equalizing grant increase at the same percentage.[16]

Whenever state funds appropriated are not sufficient to meet requirements of the distribution formula, prorating of allotted funds can have various effects. Suppose all districts in Wisconsin levied 15 instead of 10 mills, required state funds would increase by a third. Further, suppose the legislature provided only three-fourths of this requirement or enough for full state payment on the 10-mill program. If allotments were reduced at the grant stage to three-fourths, the local contribution rate would be 7.5 to 11.5 mills instead of 10 to 15 mills, and the flat grant would vary from $30 to $45. Unless the separate flat grant was likewise reduced, the break point between all equalizing and mixed flat- and equalizing-grant districts would move down from $24,000 to $23,777 equalized valuation per pupil. Such variations can change the effect of the state distribution from that written into law.

A separate flat and equalizing grant, as in Wisconsin, is minimally affected. There are shifts of districts from the equalizing grant to the flat grant if it is not likewise reduced. On the other hand, in a single grant distribution containing both a flat grant and an equalizing portion, proration of funds can change considerably the distribution in the state-aid formula with the exact effect depending on the method of proration.

If the allotment is prorated to give each district a percentage of the funds it would receive, each element is reduced by the same percentage. If the program amount is reduced so as to achieve total allotments equal to the appropriation, some districts which would normally receive funds will receive no funds, which makes use of this method of proration unlikely. If the local contribution rate is reduced, equalization takes place at a lower level and more districts receive a flat grant. If the local contribution is increased, equalization takes place at a higher level and again the unlikely event of some districts receiving no funds occurs.

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[16] See apportionment index and accompanying discussions.

Consider Districts A and E which receive the same amount of state funds when A has a $600 per-pupil program and E, the $1,000 per-pupil program, on salary allowances: proration of the total program amount leaves the two equal; proration of support level gives A more state funds than E. In a mixed equalization and flat-grant program, although A and E can never receive the same amount of funds, prorating of the total program maintains the relative difference; prorating of support level or the local contribution rate increases flat grants and improves E's position with regard to A. As the choices are numerous, it is not possible to say which method of proration is most desirable. However, prorating program needs and, when necessary, the local contribution rate, to continue a good portion of the funds for equalization by giving least wealthy districts more, seems preferable. Moreover, weightings may not achieve the effect described in the formula when the program is not fully financed. Theoretical considerations on general data can go far afield when various conditions affect the actual distribution in a state, and these effects generally can only be gleaned from empirical data for a state.

Different Theoretical Concept of State Aid

All of this discussion has dealt with the traditional minimum or foundation formula; for a different theoretical construction which seems more useful for the future, model 9 of Musgrave is proposed.[17] This formula provides for both incentive and equalization. As given below, the formula provides this only for a limited amount of local revenue; it could be written to equalize potential revenue as well. Providing for potential revenue would remove the upper limit set to the local tax rate. The formula recognizes the state tax rate required to raise program funds. The rate is not equalized, but the same rate is required for each district. The tax rate could be proportionate as in the case of property or sales taxes, or progressive as in the income tax. In each case, it would have a different effect on individuals but not on school districts. The formula provides in the first term equalization of local tax bases and in the second term, equalization of amount per unit of need. The third and final term determines whether the school district receives a payment from the state or makes a contribution to provide funds for the state grant program. The formula is

$$S_i = kt_i\overline{B} + N_i\text{-}\overline{N})kt_iB_i - t_cB_i$$

where

S_i = payment to "ith" district or contribution of "ith" district to state. "i" indicates each district in the state.

k = percent from state, e.g., 50 percent.

t_i = local tax rate in "ith" district; each district can choose whatever tax rate it desires.

B = average dollar value tax base per district in the state.

N_i = need in "ith" district.

$\overline{N}$ = average need per district in the state.

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[17] Musgrave, Richard A., *op. cit.*

t_c = State tax rate required to raise funds distributed by the state so that condition $S_i = O$, i.e., that sums of payments and contributions of all districts equal zero.

An essential difference between this formula and the traditional formula in school finance is the use of B to represent the tax base rather than C to represent local capacity. This is done deliberately. The question in state grant programs is not so much what is the measure of local capacity or ability but what is the local tax base used. From this standpoint, the answer to the question of what measure of local capacity should be used in a grant formula remains the traditional answer: the valuation of local property, preferably equalized; or an index of local taxpaying ability which attempts to measure local property valuation. The main reason for such an index has always been, and continues to be, that it is free from local manipulation which can occur from competitive underassessment of property.

Measures of Local Ability

It seems necessary to comment on general statements found more and more in school-finance literature: Because the correlation between wealth as measured by property valuations and income, approaches zero although positive, the measures of capacity in grants deserve re-evaluation.[18] That the correlation between wealth and income approaches zero has been true as long as data have been available, on a per-capita or a per-pupil basis, but is not true on an aggregate basis.[19]

From an economic sense, various types of capital have different rates of return; the income produced by property varies by type. The measurement of property at its geographic location and of income at the residence of the recipient makes for great variation. In view of these facts, is it accurate to say that income should replace property in grant programs? My answer is No.

Examination of the more recent data for California also indicates that the answer is No.[20] For a proper evaluation, not only do the data need to be expressed as a percent of the state total, but also both the income and the property data need to be placed in the same distribution formula. Using equalized apportionment index (I_n-$\bar{p}$Ic) and assuming $\bar{p}$ equals 50 percent so that both the state and the localities provide an equal share of the total funds, we find that a high correlation exists between the percentage of state funds received by each district on the basis of property valuations and income as a measure of ability. The amounts received on both bases also show a high correlation. Since California uses an income tax as one means to raise state funds, the effect of substituting income for property as a measure of capacity is further lessened. That a different measure of capacity yields a different distribution is not questioned, but it is not as different as the use of absolute values of property and income suggests. It is questionable, however, that such evidence should lead to a preference for income rather than property, especially since the local tax base is almost exclusively property. Research on the question of the measure of local capacity needs to concentrate on both the actual conditions in the state, and the changes which would occur by using one measure rather than another for local capacity. The crucial manner of expressing the variables is as a percent of the state total and not as absolute data in aggregate or per-capita of either pupil or total population.

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[18] One of the most recent statements appears in: Davis, Donald L. "Taxpaying Ability: A Study of the Relationship Between Wealth and Income in California Counties." *School Business Affairs,* November 1964, p. 10-12. The author has evaluated the data presented there in detail as suggested by the discussion, but limitations of space prevent presenting the complete details here.

[19] A list of studies which show this can be obtained from the author.

[20] Davis, Donald L., *op. cit.*

Summary

The tenor of this evaluation is that refinements in the measure of need or tax base (capacity) are not necessarily the best approach to equity in state grants. Rough measures can do as well and have the added advantage of simplicity. Rather than look for any refinements of the measure of need, an apportionment index with the need and the ability expressed as a percent of the state total is recommended. This could be done for either the traditional formula or the one of Musgrave. In the traditional concept, school districts then could be divided into those receiving a flat grant and those receiving an equalizing grant at some level, say $500 per pupil. After these choices were made, it would be possible to define for almost all flat-grant districts, an equalization program at some higher level, say $1,000.[21] If sufficient state funds were available, this would permit all school districts to move toward the higher foundation level by permitting incentives somewhat similar to those in either the newer programs or the salary allowance programs. No such method is needed for the Musgrave formula which has incentive built in.

For the measure of need, a count of pupils without any weighting is recommended.[22] For special programs such as education of the handicapped or culturally deprived pupils three choices present themselves. First, the state may provide a fixed flat grant for each pupil so identified. In this way, the state recognizes the extra need and part of its responsibility to take care of this need. The flat grant might be at half the per-pupil amount at the equalization level, or if the state felt need for greater support of these special areas, the level could be at three-fourths of or even the equalization level. This flat grant is a supplementary payment as the local district also receives the equalizing grant for this pupil.

Second, the state might provide a variable flat grant. Usually flat grants are viewed as a fixed amount per pupil, but that they can be variable is shown by the illustrations of the salary allowances and similar conditions in the newer incentive programs. In the first, the flat grant increases to a maximum with "indirect" local effort; in the second, both the flat-grant and the equalization-grant portion increases with the "direct" local contribution rate. If the state used the percentage of the general formula to contribute funds for pupils with additional needs and required no "direct" local contributions, a variable flat grant would exist. Local funds would be required only if the state supplement did not cover the cost. The poorer the district the larger the percentage of cost covered. "Indirect" local effort would vary with wealth, and equalization would still be served.

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[21] Arkansas Legislative Council, *op cit.*, p. 118-39. Chapter 9, "Alternative Plans of State Support," spells out how this can be done.

[22] District organization cannot be separated from the state-aid plan. This would work well only for states with both elementary and secondary grades in the same district. States with separate elementary and high school districts would need two separate funds if secondary schools merit a cost differential.

Third, the state could use the percentage obtained from the general formula to grant an *equalizing* amount per pupil for all such pupils identified. In effect, this method would be the same as offering an incentive as in the newer programs, but would differ in that it does not require an increase in the local rate. This would make special programs part of the jointly financed mandated program. This incentive would be offered at the same rate as the general program, or if local districts were to be encouraged to provide these special services, at either a lower local contribution rate or with a higher state percentage of total funds. Again, the local district would need to identify these pupils. These methods could also be used for salary schedules and similar weightings now in use.

This approach leads to simplicity in state grant formulas, spotlights attention on areas needing special treatment, and is more amenable to changing concepts of need. To take account of pupils of various socioeconomic levels, only the identification of the education resources required in addition to those for all pupils is necessary. Many such additional services could be separately identified. The relationship of the special needs and general grants is explicit. Changes as new needs are identified or as old needs become widespread are easily accomplished. When a need becomes widespread, it can be dropped as it no longer affects the distribution among school districts. An adjustment in per-pupil program amount is necessary to prevent a shift of financing from the state to localities. Similarly, if various additional services occur so that all districts have some, the general grant can be increased and a percentage of total pupils falling in the special categories required before special aid is paid. These changes are much simpler than refining the measure of need. Special service advocates are placed as supporters of the general program when either of the percentage grants is used, and thus should achieve a goal that has long evaded a practical means for its accomplishment—the joining of special and general aid advocates.

PART THREE

Measures of Ability

Measurement of State Effort To Support Public Education

Marvin C. Alkin

STATES' FINANCIAL effort for education, which includes the effort of local school districts, has been of direct concern in Congressional meeting rooms and to those who direct the course of our nation. The Congressional interest in measures of effort has been reflected in reports to various committees[1] and within the context of federal-aid considerations.

The continuing discussion of federal aid to states for public educational purposes has been evident for some time. Indeed, proposals have been and are now before the Congress, requesting federal support for education or for general governmental purposes. The school construction bill of 1956, the school support bill of 1959 (Murray-Metcalf), and the school systems bill of 1961 (Morse), all required states to continue making a "satisfactory effort" to support their public schools. In each case the proposal required that a penalty factor be placed in effect if the state fell below a certain level of effort.

The issue, moreover, is still very much alive. An attempt was made recently by Representative Edith Green of Oregon to introduce an effort amendment to HR 2361, 89th Congress, at the time the measure was being heard by the House Committee on Education and Labor. If the concept of effort is to play an increasingly important role in legislative and executive considerations and is to continue to show an increased likelihood of approval, it is imperative that the question be re-examined in depth. Judgments are being made of how states perform, and an index of effort may become an integral part of federal aid programs. It is urgent that the implications of alternate effort indexes be probed.

An attempt has been made thus far in this paper to indicate the poignancy and vitalness of improving the measures of educational effort. One of the major purposes of this presentation is to stimulate discussion in school-finance circles as to what constitutes adequate state financial effort. To this end:

1. A review will be made of some of the literature relating to effort.
2. A new formulation for effort will be presented.
3. The component parts of this effort index will be examined to clarify the alternate data selections which may be made.

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[1] Hirsch, Werner Z. *Analysis of the Rising Costs of Public Education.* Study Paper No. 4 for Use of the Joint Economic Committee. Washington, D.C.: Government Printing Office, 1959. p. 6.

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4. Some prepared statistical data of a comparative nature will be presented.

A Historical Note

Let no one think that questions related to effort are of recent vintage alone, for this is not the case, and there is no attempt to distinguish the work herein as a new creation. Rather, an attempt will be made to examine the effort question in its historical context, to draw from that background, and to develop a frame of reference which may be of greater significance to our present social and political situation.

As early as 1926, state financial effort to support public schools was defined as the percentage of a state's economic power which it annually spends for education.[2] By this, Norton meant that effort was the quotient of the total expenditures of a state and its economic power where economic power was a preformulated combination of wealth and income.

Leslie Chisholm utilized the yield from a "model tax plan" and two alternate tax-raising procedures as measures of fiscal ability. These were combined with various measures of educational need of states to form an ability measure to be utilized in determinations of effort.[3]

Effort was defined by another group of investigators as the quotient of current expenditures per weighted census unit divided by an estimated revenue per unit of educational need.[4] This notion of effort persisted in 1952[5] and perhaps even to the present time.

The Effort Formulation

In addition to effort-measurement considerations already mentioned, the concept of effort has become increasingly significant to writers in the field of educational finance. This concept is being used as an aid for comparing the educational programs of various states. Benson in his school finance textbook charted the relationship between expenditure per pupil and income per capita for the state.[6] Thus, the traditional concept of effort could easily be expressed by the algebraic equation:

$$(1)\ \text{EFFORT} = \frac{\text{Expenditure}}{\text{Fiscal ability}}$$

Differences arise in measures of effort from the various means of determining values for the numerator and the denominator of the fraction.

This clear formulation of effort, however, sharpens the focus on the question of whether each state should be expected to devote the same portion of fiscal ability to public educational purposes. This issue was recognized as early as 1939:

> The use of the same percentage for all States of the yield of these selected taxes for the support of any one of the social functions of government, such as education, may not be entirely justified.[7]

Of course, in this discussion Mort was referring to need—such things as the amount, nature, and distribution of children—rather than to various kinds of impediments to utilization of fiscal ability. He considered a weighted ADA, reflecting cost differentials between elementary and secondary, urban and rural, and other factors. These factors have been considered in most works prior to this time by an often arbitrary choice of weighting factors to be multiplied by ADA and census data and applied to expenditure and fiscal ability as a so-called *need* factor. Thus, the variable percentage allocation factor which Mort referred to was readily engulfed in and made a part of expenditure and fiscal ability data. For this reason, there has been little previous consideration of altering the mathematical formulation of effort. Conceptually, effort has continued to be thought of as a quotient of educational expenditures and some measure of fiscal ability of states, where these measures may be modified slightly by the assignment of various weightings.

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[2] Norton, John K. *The Ability of the States To Support Education.* Washington, D.C.: National Education Association, 1926. 88 p.

[3] Chisholm, Leslie L. *The Economic Ability of the States To Finance Public Schools.* New York: Teachers College, Columbia University, 1936. 169 p.

[4] Mort, Paul R.; Lawler, Eugene S.; and Associates. *Principles and Methods of Distributing Federal Aid for Education.* Advisory Committee on Education, Staff Study Number 5. Washington, D.C.: Government Printing Office, 1939. p. 12.

[5] Norton, John K., and Reutter, E. Edmund, Jr. "Federal Participation in Financing Education." *Problems and Issues in Public School Finance.* (Edited by R. L. Johns and E. L. Morphet.) New York: Teachers College, Columbia University, 1952. p. 255.

[6] Benson, Charles S. *The Economics of Public Education.* Boston: Houghton Mifflin Co., 1961. p. 59-65.

[7] Mort, Paul R., Lawler, Eugene S.; and Associates, *op. cit.*, p. 48.

Several recent research reports concerned with educational finance are of significance to this discussion, and lead to a consideration of the re-examination of traditional effort formulations. James, Thomas, and Dyck in some recent work[8] recognized the importance of considering various governmental and situational impediments to the utilization of local fiscal ability. These same impediments would undoubtedly be present to a similar or greater extent at state government levels.

In a recent research report, Lindman[9] examined the relationship between total populations and public-school children and demonstrated wide differences between localities in this ratio. He contended that local communities have different burdens placed upon their potential expenditures in the public sector of the economy. His thesis was that it is necessary to recognize demographic composition and characteristics of a community in order to make assumptions as to which portion of the public-sector fiscal ability might be allocated for educational purposes. In turn, this assumption may be extended to considerations of the combined state and local expenditures for public education. In short, is there an ideal allocation of resources?

Once attention is directed to the complexity of the question, myriad additional factors might be proposed as variables to be considered in determining the ideal allocation. In recognition of this, a modification of the traditional effort formulation is proposed as follows:

$$(2)\ \text{EFFORT} = \frac{\text{Expenditure}}{\text{Allocation factor} \times \text{fiscal ability}}$$

In this formulation, various situational impediments inhibiting the utilization of fiscal ability for education may be algebraically combined into an allocation factor.

In the pages that follow, the major components of the effort formulation will be examined.

Expenditure

It is quite clear that the items which should be included as educational expenditures in the consideration of a state's educational effort could be discussed at great length. Rather than examine the issue in such detail, an attempt will be made to identify the kinds of questions which must be answered in the computation of a state's expenditure.

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[8] James, H. Thomas; Thomas, J. Alan; and Dyck, Harold. *Wealth Expenditures and Decision-Making in Education.* U.S. Office of Education, Cooperative Research Project #1241. Stanford, Calif: Stanford University Press, 1963. 203 p.

[9] Lindman, Erick L. *State School Support and Municipal Government Costs.* U.S. Office of Education, Cooperative Research Project #2123. Los Angeles: University of California, 1964. 130 p.

Initially, it must be acknowledged that innumerable expenditures within state and local governments which are normally considered educational expenditures *per se* may quite logically be included as components of a state's educational program. Should educational expenditures for such items as adult education and library services, which are normally considered as separate from education, be counted? What educational benefits are part of the public recreation program, and what costs may be considered educational?

Are expenditures for parochial and other private schools to be considered educational expenditures of a state in determining the effort? Is Rhode Island, for example, to be considered as putting forth a relatively small effort in relation to its fiscal ability, when some residents of that state have other educational demands on their available resources? It is possible that a judicious choice of an allocation factor which will reflect these alternate education costs may be made.

Various administrative expenses constitute another area of concern. Perhaps all agree that the expenses of county school departments and state departments of education should not be included in the total expenditure. It should be borne in mind, however, that there are tremendous variations on these items. A recent committee print of the Committee on Education and Labor of the House of Representatives pointed out that expenditures for state departments vary from a low of about $200,000 a year to about $14 million a year.[10] Related to this is the question of retirement expenditures, which easily may become obscured by complex accounting procedures. If the employers' contribution is made by the local school district, this item is displayed in the budget under "fixed charges." Alternately, if the state pays the employers' contribution, it generally is not included in the educational expenditures of the state.

Most authorities agree that federal payments to local and state governments ought not to be considered expenditures of those governments in formulations of state effort. What has been considered less frequently, however, is the difference between the so-called voluntary expenditure and the expenditures required for qualification for federal matching programs. Should only voluntary (nonfederal matching) state and local expenditures be considered, or should all expenditures of state and local governments be examined? Specifically, should state or local expenditures used as required matching amounts for federal funds be included as part of a state's expenditures in the determination of state effort?

There are even difficulties relative to various items included as direct educational expenditures and considered within the educational budget. Should the costs of health services be included as expenditures? What about the cost of school lunches paid for by the parents of the child? Are there not considerable accounting difficulties in making interstate comparisons when, for example, Louisiana has substantial state support for school lunches? Another perplexing but related area is the question of whether funds utilized for so-called community services ought to be included.

Once the dilemma of current expenditure items is solved, another consideration is brought to mind—the inclusion or exclusion of capital outlay costs. Most statistical examinations of expenditures prefer to ignore this category of cost. Perhaps the prime reason is the difficulty of assigning these expenditures to a given year. Would it be possible, feasible, and desirable to prorate and then assign these capital outlay costs?

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[10] U.S. 89th Congress, 1st Session, House of Representatives, Committee on Education and Labor. *Education Goals for 1965*. Washington, D.C.: Government Printing Office, 1965. p. 63.

These considerations point out all too clearly the need for the development of an improved system for making cost analyses of state and local educational expenditures. It is imperative to recognize the extent of uniformity that exists among the accounting procedures used in states, and to make appropriate adjustments of these expenditures when they are not uniform, in order that comparable expenditure totals be produced. Consider, in passing, whether differences exist among states —or for that matter, between districts —on the criteria utilized in determining whether various replacement items are to be included as maintenance costs, or listed as capital outlay expenditures.

A final question related to this area will be presented for consideration. Is it necessary to adjust the expenditures for wide differences in the cost of living or are such adjustments satisfactorily considered in the examination of "fiscal ability" in the denominator of the fraction? No definite answer can be presented, but the contention is made here that the close relationship between relative expenditure levels and fiscal ability will adjust for cost-of-living factors.

In this study, current expenses of education utilized by the National Education Association in their studies[11] will be examined as the measure of expenditure. Their data relate only to current expenditures of public elementary and secondary day schools for general control, instructional service, operation, maintenance, and fixed charges at state, intermediate, and local levels of administration. The use of this measure, however, in no way implies that other measures might not be more feasible in other times and places. Indeed, the author recognizes the necessity for including the cost of other items under the category of educational expenditures, but is limited by considerations of time in this initial examination.

Fiscal Ability

In view of the other comments made at this conference in which the measurement of ability was discussed at full length, it does not seem necessary to prolong an extensive examination of the same issues in this presentation. However, it is essential to the understanding of this paper that a clear choice of alternate formulations for the measurement of fiscal ability be presented. Perhaps the key decision has been the determination as to whether the single measure index of ability should be used or whether a multiple index can be derived.

The history of school finance is dotted with various attempts at deriving multiple indexes of fiscal capacity. Worthy of note are the diverse indexes of tax-paying ability which have been proposed, many of these which are still in use in several states today. Colorado has a relatively simple index which averages income and property tax data; some states have more complex measures, utilizing various economic indicators. Before multiple indexes are to be used for evaluating fiscal capacity and drawing relationships between states, the nature of the assumptions implicit in the acceptance of such procedures should be clearly delineated. This is especially true in regard to indexes based on the so-called model tax plan. Acceptance of such indexes assumes that an ideal procedure for raising taxes can be derived. This is not substantiated in the literature of economics. Whether it is possible to present a meaningful rationale for the use of multiple indexes which are external to a model tax plan is also doubtful. Perhaps various fiscal capacity measures can be statistically combined by utilizing one or another of the multivariate techniques.

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[11] National Education Association, Special Project on School Finance. ***Financing the Public Schools, 1960-1970.*** Washington, D.C.: the Association, 1962. p. 137, 146.

Relative to the use of a single measure of financial ability, discussions have centered on the alternate acceptance of the economic concepts of stock and flow. In short, should a measure which represents the yearly flow of funds, such as income, be used as the measure of financial ability, or should the choice be a measure representative of the total stock of accrued fiscal capacity, such as wealth or property valuation? The issue has been discussed on many fronts, with the apparent conclusion evidencing the practical realities of data collection in our time. Property valuations are more easily obtained for local school districts than for states. Additionally, there is a problem of determining true assessment ratios in making interstate comparisons. On the other hand, the lack of coterminality of local school districts with census tract units has made it difficult to utilize income data in the examination of these districts. Thus, a pattern of using property valuation as a measure of fiscal capacity in intrastate comparisons and of using income as a measure of fiscal capacities among states has been reasonably well established.

An additional indication of the many recommended modifications of this practice is suggested by a 1959 report of the Educational Policies Commission:

> An illuminating index of capacity of a state to support education is the income left to its people after payments for personal taxes and for the basic necessities for food, clothing, and shelter. This residual income may be divided by the number of school-age children in the state in order to find the total personal income available per child for all additional expenditures of every kind, public and private.[12]

One might be troubled about the procedure used by the Educational Policies Commission of subtracting a fixed allowance of $800 per person for food, clothing, and shelter in all states. This does not take into consideration the cost-of-living differences among the states. The fixed allowance simply does not represent comparable real purchasing power in Mississippi, California or New York.

In this study, personal income as determined by the U.S. Department of Commerce (1963) will be used as the measure of fiscal capacity. The data are defined as the measure of current income received from all sources during the calendar year by the residents of each state.

Allocation Factor

There will be no attempt in this section to identify the multitude of situational constraints which may be placed upon and inhibit the fiscal ability of a state. Rather, three allocation factors will be developed, and statistical comparisons will be made among the states on the basis of each. It will be a function of this study to test alternative allocation factors to determine the sensitivity of the effort indicator. All three effort comparisons will utilize the same measures of expenditure and fiscal ability, namely, the two identified earlier.

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[12] National Education Association and American Association of School Administrators, Educational Policies Commission. *National Policy and the Financing of the Public Schools.* Washington, D.C.: the Commission, 1959. p. 15.

Each index is a quotient in the form of equation (2) and derived by the choice of the allocation factor. Thus, the general form of the index written symbolically is:

$$(3)\quad \mathrm{Ind} = \frac{E}{QI}$$

Where: Ind = the effort index
E = expenditure
I = fiscal ability
Q = allocation factor

In *Index 1,* the allocation factor is a constant equal to the national average percent of income devoted to education. This assumes that all states should be expected to spend the same proportion of their income (fiscal ability) on education.

In *Index 2,* the allocation is assumed proportional to the ratio of public-school children to total population in a state. This assumes that the percent of the state's fiscal ability which is "expected" to be devoted to public education should be proportional to the percent of public-school children in the total population of a state.

In *Index 3,* the allocation factor is based upon the theoretical division of a state's total fiscal ability between schools and all other purposes (including feeding, clothing, and housing the total population of the state) in proportion, respectively, to public-school attendance and total population. This index is derived from the work of Lindman[13] and differs from the second effort index in the way that ability is considered to be divided between public education and all other purposes. Thus, the three indexes are as follows:

$$(4)\quad \mathrm{Ind}_1 = \frac{E}{Q_1 I}$$

$$\text{where: } Q_1 = \frac{\Sigma E}{\Sigma I}$$

$\Sigma E, \Sigma I$ = corresponding national totals

$$(5)\quad \mathrm{Ind}_2 = \frac{E}{Q_2 I}$$

$$\text{where: } Q_2 = \frac{\Sigma E}{\Sigma I} \cdot \frac{A}{N} \cdot \frac{\Sigma N}{\Sigma A}$$

N = total population of a state
A = total public elementary and secondary-school enrollment of a state
$\Sigma N, \Sigma A$ = corresponding national totals

$$(6)\quad \mathrm{Ind}_3 = \frac{E}{Q_3 I}$$

$$\text{where: } Q_3 = \frac{C \cdot A}{CA + N}$$

$$C = \frac{\Sigma E}{\Sigma I - \Sigma E} \cdot \frac{\Sigma N}{\Sigma A}$$

It would be useful to obtain comparability among the effort indexes. Thus, each index was adjusted mathematically with appropriate constants representing national data so that the national average index is one (1) for each of the three indexes. If the index is larger than one, a state is considered to be exerting greater than the national average. An index smaller than one would reflect an effort less than the average nationally.

The three indexes developed have been applied by Carlson[14] to the states for the year 1960. Results of the application of these indexes are shown in Tables 1 and 2. Table 1 presents the individual scores and ranking of each of the 50 states under each index. Columns 3, 5, and 7 of Table 1 show the rankings of the states. It is interesting to note that there is little change evident from Index 2 to Index 3.

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[13] Lindman, Erick L., *op. cit.*

[14] Carlson, Bruce M. *A Comparison of Indexes of State Effort To Support Public Schools.* Unpublished master's thesis, University of California, Los Angeles, 1965.

Index 1, because of the way it was derived, is unaffected by the ratio of population to public-school attendance. Indexes 2 and 3 are related functions of N/A; the higher the ratio of N/A, the higher their measured effort. This bears a relationship to how states fare on the various indexes. Consider Mississippi (N/A: 3.84) and Rhode Island (N/A: 6.41). The three indexes rank Mississippi 8th, 28th, and 25th with scores of 1.236, .956, and .965,

Table 1.—Scores and Ranks of the Effort of the 50 States by Three Indexes, 1960

State	Index 1		Index 2		Index 3	
	Score	Rank	Score	Rank	Score	Rank
1	2	3	4	5	6	7
Alabama	1.121	15	.936	32	.942	29
Alaska	.794	50	.803	48	.803	48
Arizona	1.180	9	1.021	19	1.027	19
Arkansas	1.082	22	.918	35	.923	36
California	1.120	16	1.108	10	1.108	10
Colorado	1.074	24	.963	26	.966	24
Connecticut	.839	43	.898	39	.880	42
Delaware	.825	45	.915	36	.913	37
Florida	.904	37	.908	37	.908	38
Georgia	1.026	27	.859	46	.864	46
Hawaii	.852	41	.781	50	.784	50
Idaho	1.120	17	.929	33	.934	32
Illinois	.825	46	.937	31	.933	33
Indiana	1.026	28	.974	23	.976	23
Iowa	1.153	13	1.070	13	1.074	13
Kansas	1.098	19	1.006	20	1.009	20
Kentucky	.892	39	.865	45	.866	45
Louisiana	1.428	1	1.352	1	1.355	1
Maine	.904	38	.905	38	.904	39
Maryland	.887	40	.929	33	.928	34
Massachusetts	.804	49	.968	24	.964	26
Michigan	1.098	20	1.065	14	1.065	4
Minnesota	1.240	6	1.265	2	1.247	2
Mississippi	1.236	8	.956	28	.965	25
Missouri	.825	47	.874	43	.873	44
Montana	1.239	7	1.162	6	1.164	5
Nebraska	.938	33	.942	29	.942	30
Nevada	.907	36	.789	49	.793	49
New Hampshire	.836	44	.964	25	.960	28
New Jersey	.938	34	1.091	12	1.086	12
New Mexico	1.249	5	1.036	18	1.042	18
New York	.983	30	1.174	3	1.169	3
North Carolina	1.063	25	.883	42	.888	41
North Dakota	1.161	12	1.048	16	1.052	16
Ohio	.916	35	.940	30	.939	31
Oklahoma	1.090	21	.957	27	.961	27
Oregon	1.270	4	1.163	4	1.167	4
Pennsylvania	.943	32	1.116	8	1.110	8
Rhode Island	.823	48	1.062	15	1.056	15
South Carolina	1.109	18	.873	44	.880	43
South Dakota	1.168	11	1.047	17	1.051	17
Tennessee	1.007	29	.892	41	.895	40
Texas	1.051	26	.980	22	.982	22
Utah	1.300	3	.988	21	.998	21
Vermont	1.081	23	1.163	5	1.161	6
Virginia	.848	42	.806	47	.807	47
Washington	1.169	10	1.103	11	1.105	11
West Virginia	1.132	14	.920	34	.926	35
Wisconsin	.978	31	1.114	9	1.110	9
Wyoming	1.361	2	1.117	7	1.124	7

Source:
Carlson, Bruce M. A Comparison of Indexes of State Effort to Support Public Schools. Unpublished master's thesis, University of California, Los Angeles, 1965. p. 18-20.

Table 2.—Index Results Compared, with States Grouped by Four Factors

Factor	Group	Index 1 Average Score	Index 2 Average Score	Index 3 Average Score
1	2	3	4	5
I. Per-Capita Income	High 12	.931	.974	.972
	Low 12	1.125	.961	.966
	Difference	−.194	.013	.006
II. Percent enrollment increase, 1950-1960	High 12	.936	.929	.928
	Low 12	1.063	.948	.951
	Difference	−.127	−.019	−.023
III. Percent enrollment in private schools	High 12	.934	1.069	1.064
	Low 12	1.090	.909	.915
	Difference	−.156	.160	.149
IV. Percent urban population	High 12	.968	.993	.991
	Low 12	1.089	.881	.884
	Difference	−.121	.112	.107

Source:
Carlson, Bruce M. A Comparison of Indexes of State Effort to Support Public Schools. Unpublished master's thesis, University of California, Los Angeles, 1965. p. 43-45.

respectively. Rhode Island has ranks of 48, 15, and 15, with scores of .823, 1.062, and 1.056, respectively. On the other hand, Maine, which comes closest to the national average of N/A, obtains nearly the same scores and ranks from all three indexes.

As a basis for comparing the indexes, an analysis has been prepared which shows the relationship between index results and four situational factors. For each of the four factors shown in Table 2 the 12 highest and 12 lowest states were determined; the average values and ranks of each index were then found for each group of 12 states. Thus, in Table 2, what is shown is how each index measures the upper and lower quartiles among the states for each factor listed. In turn, index scores will be examined for each of the four factors, and speculative hypotheses will be presented.

In the case of the first factor, per-capita income, it appears that Index 1 strongly "favors" those states whose per-capita income is low. Also, factors 2, 3, and 4 are favored by Indexes 2 and 3. That is, each of these two indexes has a greater positive relationship to percent enrollment increase, percent enrollment in private schools, and percent urban population.

Factor 2, percent increase in enrollment, shows consistent results among the three indexes. In all three cases states with a high percent of increase receive smaller effort measures. The differences are less with Indexes 2 and 3, however. The results may reflect the fact that as school enrollment increases rapidly, educational finances tend to lag. In addition, capital outlay expenses which are not included in this analysis would be greater in states with rapid enrollment increases. If the expenditures increase more slowly than enrollment and income, the result is that effort measures suffer. Thus, based upon this factor, Indexes 2 and 3 seem to be preferable.

Relative to the third factor, Index 1 shows results opposite from Indexes 2 and 3, the former giving highest effort to the states with the highest relative public-school enrollment. This is probably due to the fact that a state with many private-school children needs to spend relatively less of its income for its fewer children in public schools. This might be construed by some as an influence favoring Indexes 2 and 3.

Although the result of the relationship from the fourth factor is perhaps incidental, it should be noted that Indexes 2 and 3 favor urban states to a slight degree. An interpretation of these results will be left to the judgment of more astute observers and those more politically involved.

Conclusions

The necessity of recognizing the full policy implications inherent in the selection of an index of state financial effort has been pointed out. Far too often, measures of effort are presented either for comparative study or for legislative use without a recognition of factors being emphasized by the use of that plan, or without recognition of alternate effort indexes which might be derived. The effort formulation which has been presented here clearly indicates choices which might be made in the development of an effort index.

It is interesting to note that Index 2 is similar to many of the effort measures which have been a part of previous federal aid proposals. The main variation between those proposals and Index 2 is that the legislative proposals drew a relationship between the number of public-school children and the children of school age, while Index 2 draws a relationship between public-school children and total population of a state. Thus, the federal proposals recognize educational burdens associated with private-school children, but fail to take cognizance of burdens associated with total population. There is a possibility of revamping effort formulas presently under federal consideration to the similar effort index, Index 2.

There is a need for further conceptual work before the implementation of action programs utilizing effort formulations. In this study an attempt has been made to bring to the fore some of the issues involved in the building of measures of effort. The testing of alternative allocation factors demonstrated the great sensitivity of the effort indicator. There is a need to concentrate on this type of analysis; as long as effort formulations are a major factor in the allocation of funds, caution should be exercised in the selection of the components of these indexes.

Further Study Needed

All three components of the effort index are highly complex. The difficulty of selecting what is to be included in the three elements (expenditure, fiscal ability, allocation factor) is compounded by inadequate accounting systems, difficulties in measuring fiscal ability, and highly complex interactions between men. The governmental structures which hamper the derivation and evaluation of effort indexes are the following:

1. The lack of adequate cost functions and associated educational benefits for various noneducational governmental services closely related to education, such as public libraries

2. The need for more sophisticated school accounting systems which indicate the full costs of specific educational subprograms

3. The need for continued study of sociological and political arrangements which impede or aid achievement of full access to fiscal resources.

Indirect Measures of Local Ability To Support Schools

R. L. Johns

LOCAL ABILITY TO support schools could be given a rather broad treatment. It could include a discussion of the equity of property taxes as compared with other types of taxes, such as personal income taxes, corporate income taxes, sales taxes, and excise taxes. It could include appraisal of the effect of different levels of property taxation on the economic growth of local taxing units. It could include an analysis of the competition of local boards of education with other units of local government for the property tax. In fact, an adequate treatment of local ability to support schools would involve a comprehensive treatment of the effects of all programs of federal, state, and local taxes on public-school financing. Obviously, this cannot be done in a paper of this length. Therefore, this paper is confined to a discussion of measures of local ability to support schools with special reference to indirect measures. It is further assumed that these measures are not theoretical measures of the ultimate capacity of the people of a school district to pay taxes, but measures of the relative taxpaying ability of local school districts which are used by the state in apportioning state equalization funds.

Approximately 98 percent of all local tax revenue for schools is derived from property taxes. Therefore, it would seem that local ability to support schools is determined almost exclusively by the equalized value of taxable property per unit of educational need. However, the problem is not that simple for the following reasons:

1. It is argued by some that the extra costs of municipal government in large cities reduces the taxpaying ability of those cities to support schools.
2. It is argued that income is a better measure of local taxpaying ability than property valuation.
3. Some states do not have adequate machinery for determining the equalized value of property in local school districts; therefore, some other measure of local taxpaying ability is needed.

Let us examine these points in order.

Effect of Extra Costs of Municipal Government on Local Taxpaying Ability for Schools

Lindman in a paper titled "School Support and Municipal Costs" [1] ques-

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[1] Lindman, Erick L. "School Support and Municipal Government Costs." *Long Range Planning in School Finance*. Proceedings of the Sixth National School Finance Conference, Committee on Educational Finance. Washington, D.C.: National Education Association, 1963. p. 129-34.

tioned the validity of the assumption contained in state support formulas that each district had the same proportion of the property tax base available in all school districts to finance schools. He pointed out that rural school districts did not have as high a property tax burden for nonschool local government costs as municipal districts, and also that municipal districts varied among themselves in the ratio of school costs to municipal costs. He then proposed a formula for correcting the measure of local ability of municipal districts based on the assumption that a city's financial requirement for municipal services is proportional to its total population and its school requirement is proportional to its school population.[2] The mathematics of that formula is presented in the Proceedings of the Sixth National School Finance Conference.

Lindman,[3] assisted by McClure, Burke, Alkin, and Johns, applied his correction formula to school districts in Illinois, New York, California, and Florida. The results were mixed. The correction formula seemed to improve the equity of the measure of local ability in some districts, but it seemed to reduce the equity of the measure in other districts. The chief problem was that the boundaries of school districts are frequently not coterminous with municipal boundaries. This is particularly true in county unit states, such as Florida. Therefore, it does not seem possible to make a universal improvement of measures of local taxpaying ability by the use of Lindman's proposed correction formula.

However, the evidence on the rising costs of municipal government supports Lindman in his questioning of the validity of the assumption in state support formulas that each district has the same proportion of the tax base available for school financing. The solution to that problem will probably be found in increased grants-in-aid to municipalities rather than in modifying the measures of local ability to support schools used in state support formulas. This solution will be much more politically feasible when the recent ruling of the Supreme Court of the United States requiring the apportionment of state legislatures in proportion to population is implemented, because it will eliminate the domination of legislatures by rural members who have but little interest in the problems of municipalities.

Peterson, Rossmiller, North, and Wakefield have proposed a hypothetical model for state support[4] which envisions a comprehensive integrated program of state support for school, municipal, and county governments. While no state has yet adopted a plan based on this model, the increase of grants-in-aid to municipal and county governments indicates that a comprehensive state support model may become feasible at some future time. The attainment of this goal would solve the problems considered by Lindman.

The point has also been made that state support formulas do not recognize the extra costs of education of the children of culturally disadvantaged persons living in the great cities. This may be true. However, the solution to this problem will not be found in modifying measures of local ability but in modifying the measures of educational need contained in state support formulas. Furthermore, if the school aid proposals now pending in the Congress are enacted into law, this problem will be solved by the federal government.

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[2] *Ibid.*, p. 133.

[3] Lindman, Erick L., *State School Support and Municipal Government Costs.* U.S. Office of Education, Cooperative Research Project #2123. Los Angeles: University of California, 1964. 130 p.

[4] Peterson, LeRoy J., and others. *Economic Impact of State Support Models on Educational Finance.* U.S. Office of Education, Cooperative Research Project #1495. Madison: University of Wisconsin, 1963. 311 p.

Personal Income vs. Property Valuation as a Measure of Local Taxpaying Ability

All taxes must be paid in cash from income earned in past years, current income, or expected income. Therefore, it is argued that all equitable taxes should be rather closely related to income. Peterson and his associates stated that there appears to be some justification for using personal income tax paid for measuring fiscal capacity. They made the following comment concerning this measure:

> In spite of several limitations, e.g., lack of close relationship with some tax bases and a negative correlation with the value of agricultural property, net personal income tax paid per capita emerged as the best single measure of fiscal capacity in all districts.[5]

With the passage of time the possession of property is becoming a less valid measure of local taxpaying ability. Evidence of the truth of this statement can be found in data furnished by the U. S. Department of Commerce on the composition of the national income. In 1929, the compensation of employees comprised 58 percent of the national income, and in 1963 the corresponding figure was 71 percent. In 1929, the income derived directly from property, such as farm income, rental income, and net interest income, comprised 20 percent of the national income, and in 1963, approximately 10 percent.

James, Thomas, and Dyck[6] have suggested that income and property measures probably indicate quite different dimensions of taxpaying ability. These researchers derived the following simple correlations between median family income and per-capita market value of property: Wisconsin, .57; New York, .40; Oregon, .34; California, .34; Massachusetts, .30; New Jersey, .26; New Mexico, .09; Washington, .01; and Nebraska, —.18. The authors of this study pointed out that the reliability of these coefficients could be questioned because the lack of income data forced the use of median family income instead of per-capita income as the measure of income.

Davis[7] computed the rank order correlation between per-capita income and per-capita equalized valuation in California counties, and found it to be .22 as compared with the .34 simple correlation coefficient computed by James and his associates.

Kimbrough and Johns,[8] co-directors of Cooperative Research Project #2842, and their research assistants computed the rank order correlation in 1962-63 between per-capita personal income and per-capita equalized valuation of property in districts of 20,000 population and above in four states. They found the following correlations: Kentucky, .637; Florida, .469; Georgia, .442; and Illinois, —.098. These findings corroborated the findings of James and his associates. It is evident that per-capita personal income and per-capita capital market value of property measure somewhat different aspects of taxpaying capacity. Although personal income may theoretically be a more equitable measure of local taxpaying ability than equalized value of property, it is not administratively feasible to use personal income as the measure of local taxpaying ability in apportioning state school funds because local boards of education do not have the power to levy a local tax highly correlated with personal income.

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[5] *Ibid.*, p. 269.

[6] James, H. Thomas; Thomas, J. Alan; and Dyck, Harold J. *Wealth, Expenditure and Decision-Making for Education*. U.S. Office of Education, Cooperative Research Project #1241. Stanford, Calif.: Stanford University, 1963. p. 7 and 8.

[7] Davis, Donald L. *Taxpaying Ability: A Study of the Relationship Between Wealth and Income in California Counties*. Unpublished Ed.D. Dissertation, Stanford University, Stanford, California, 1963.

[8] Kimbrough, R. B., and Johns, R. L., *The Relationship of Socioeconomic Factors, Educational Leadership Patterns and Elements of Community Power Structure to Local School Fiscal Policy*. Cooperative Research Project #2842, College of Education, University of Florida. (Final report will be published in 1967.)

These facts and the evidence presented by Peterson and his associates do not necessarily prove that the equalized value of taxable property should be abandoned as the measure of local taxpaying ability to support schools. Rather these facts may indicate that a considerably higher proportion of the school budget should be provided from nonproperty state and federal taxes than the present practice. Since more than 98 percent of all local school tax revenue is derived from taxes on property, the only realistic measure of local taxpaying ability to use in apportioning state equalization funds is the equalized value of taxable property or some measure closely associated with it. Perhaps what we are measuring when we apportion state equalization funds is not local taxpaying ability, but rather the assessibility of local tax revenue to boards of education.

The Economic Index as a Measure of Local Taxpaying Ability

If a state has an agency which annually makes a reasonably accurate determination of the equalized value of taxable property in each district, equalized valuation is the measure of local taxpaying ability which should be used in apportioning state equalization funds, if a measure of ability relating to property valuation is desired. It is highly important that the state agency charged with the responsibility of determining the equalized value of property be nonpolitical and be adequately staffed with qualified personnel. It is beyond the scope of this paper to discuss standards and procedures for determining equalized valuations. However, unless this task is performed properly, the reported equalized valuations may not constitute a valid measure of local taxpaying ability.

A number of the states have failed to establish a state authority for determining equalized valuations. Most of those states are located in the South. However, the legislatures of most Southern states have established state equalization or foundation program funds for the public schools. Those states found it necessary to devise some measure of local taxpaying ability which approximates equalized valuations. Therefore, the economic index was developed to estimate the relative equalized valuations of local school districts.

Cornell [9] did pioneer work in introducing the use of economic measures to estimate equalized valuations. In 1936, he demonstrated that such economic variables as population, retail sales, motor vehicle registration, gross production, numbers of individual income tax returns, and postal receipts could be used in regression equation to estimate equalized valuation. Cornell did not devise his measure of taxpaying ability for use in apportioning state equalization funds, but rather to check the validity of equalized valuation as reported by the state agency.

In 1938, I developed the first economic index of taxpaying ability used in apportioning state equalization funds. It was a rather crude index, but it was adopted by the Alabama Legislature in 1938.[10] Since that time the following states have used economic indexes for apportioning state equalization funds: Texas, Arkansas, Mississippi, Tennessee, West Virginia, Georgia, and Florida. Two states, West Virginia and Georgia, in recent years have changed their measure of local ability from an economic index to equalized valuations.

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[9] Cornell, Francis G. *A Measure of Taxpaying Ability of Local School Administrative Units.* Contributions to Education, No. 698. New York: Teachers College, Columbia University, 1936. 114 p.

There has been much misunderstanding concerning the nature and use of economic indexes of taxpaying ability. These misconcepts have appeared in periodical articles, bulletins, and even textbooks on school finance. It is believed by some that the economic index has been promoted as a measure of taxpaying ability superior to equalized valuation. It is believed by others that the authors of economic indexes are attempting to measure something other than equalized valuations. Herbert A. Meyer, professor of mathematics, University of Florida, and I have computed the economic indexes of six of the eight states having used such indexes. We have always used equalized valuation or some approximation of equalized valuation as the dependent variable in our regression equations. Furthermore, we have invariably recommended that a state change from the use of an economic index to equalized valuation when usable data on equalized valuation became available.

If a state finds it necessary to use an economic index to estimate equalized valuations, the most advanced technology should be used. Considerable improvement has been made in the statistical procedures used in computing economic indexes.

Following are the criteria used by Professor Meyer and me in computing economic indexes of local taxpaying ability.[11]

1. The index and all economic factors should be objective; therefore, all data pertaining to these factors should be obtainable from reliable published sources.
2. All economic factors and the index should be independent of the influence of local assessing bodies.
3. Each economic factor should measure some different aspect of the wealth of the state, and a sufficient number should be included in order to represent all the principal elements of the wealth of the state.
4. The index should be based on some validating measure that directly corresponds to the actual value of property.
5. The mathematical formula employed for the development of the index of taxpaying ability should be as sensitive to the small local units as it is to the large local units in predicting relative ability.
6. The index of taxpaying ability should be as equitable as possible without undue complexity in order that the formula be administratively feasible.
7. The regression equation used in developing the index must be theoretically valid as well as mathematically valid.

As I shall show later, these criteria actually describe the model for an index of taxpaying ability which is theoretically valid.

The first step in computing an economic index is to select the dependent variable. As I have already indicated, some approximation of the equalized value of the property is the most appropriate measure to use. In some states it may be difficult to obtain usable data on equalized valuations.

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[10] Johns, R. L. *An Index of the Financial Ability of Local School Systems To Support Public Education.* Montgomery: Alabama State Department of Education, 1938.

[11] The remainder of this paper has been adapted largely from the following monograph: Meyer, Herbert A., and Johns, R. L. *A Method for Calculating an Economic Index of the Taxpaying Ability of Local School Units.* Gainesville: University of Florida, College of Education, 1954.

The second step is to select the independent variables to include in the equation. It is difficult to obtain accurate data on many independent variables for areas less than a county in size. This does not mean that an economic index cannot be used in a state for apportioning school funds unless the schools are organized on a county-unit basis. But it does mean that the economic index cannot be used in a state unless a county-wide assessing authority is provided either for assessing property on a county-wide basis or for equalizing assessments on a county-wide basis. If such a county authority is provided, an index of the taxpaying ability of a county can be computed, and that index apportioned among the several school districts of the county in proportion to the assessed valuation fixed by the county authority.

Many different independent variables can be used. In selecting independent variables, the following points should be kept in mind: (a) Each factor should measure some different aspect of a state's economy, and the intercorrelation between the independent variables should be minimized. (b) A sufficient number of economic factors should be used to measure all aspects of a state's economy. (c) The inclusion of too large a number of economic factors in the formula unnecessarily complicates it without substantially increasing its validity or reliability. Most indexes include only five or six independent variables. The most commonly used predictive variables are retail sales, personal income taxes paid, number of gainfully employed workers, value of farm products, proceeds of auto license tag sales, and valuation of public utilities. Many other factors, of course, could be used. It is common practice to express the index of taxpaying ability of each local unit in percent of the state total. Therefore, each variable is computed for each local unit as a percentage of the state total.

The third step is to select a mathematical method for determining the appropriate weights to assign to the independent variables. It would seem that this is a relatively simple problem in multiple regression where the well-known method of least squares could be readily applied to find the values of A in the linear equation of the form of

$$Y_c = A_o + A_1X_1 + A_2X_2 \ldots . A_nX_n.$$

The Y_c is the computed index and the X's, the independent variables. But the standard method of least squares, estimates the taxpaying ability of large local school units with relatively greater accuracy than small units. Therefore, the standard method of least squares does not meet the requirements of our model. This is due to the fact that the mathematical condition that the sum of the squares of the expression $Y_o – Y_c$ (where Y_o is the observed value of the dependent variable and Y_c the computed value) shall be a minimum is incorporated in the equations derived to compute the weights of the independent variables.

In order to eliminate this defect of the standard least squares method, it was necessary to derive equations in which the squares of relative deviations were minimized instead of minimizing the squares of total deviations. This can be accomplished by deriving equations for computing regression weights to assign to the economic factors included in the regression equation for the index from the mathematical condition that the sum of the squares of the expression $\frac{Y_o - Y_c}{Y_o}$ shall be a minimum. This mathematical condition meets the requirement of our model that the regression equation estimate the taxpaying ability in small school units relatively as accurately as in large school units because it minimizes relative deviation rather than total deviation. The derivations of this type of least squares equation are set forth in the monograph by Herbert A. Meyer and R. L. Johns.[12]

But this new type of least squares equation solves only a part of our problem in meeting the criteria of a valid index. One of our criteria is that the regression equations used in developing the index must be theoretically valid as well as mathematically valid. A computer has been called a mechanical moron. A mathematical equation applied outside its limits also may produce moronic results.

In recent years we have increased the use of theoretical models in validating research in educational administration. Fortunately we can use this approach in making an economic index theoretically valid as well as mathematically valid.

Let us expand our concept of a model of an economic index of taxpaying ability that is theoretically valid. Let us assume that our dependent variable and each of our independent variables in each local unit are expressed in percentage of the state total. Let us also assume that we have selected a list of independent variables that adequately describe all aspects of the economy of the state. Then each independent variable underestimates, overestimates, or approximates the index of taxpaying ability of a local school unit. If these assumptions are accepted, theoretically the computed index of taxpaying ability of a local school unit must be somewhere between the highest value and the lowest value of the independent variables for that unit in order to be valid. To state this point in other words, let us assume retail sales, personal income, farm income, auto licenses, and valuation of public utilities are the independent variables being used to estimate taxpaying ability. Let us assume that School District A has 3.1 percent of the personal income of the state, 2.1 percent of the valuation of public utilities, 2.0 percent of the retail sales, 1.5 percent of the auto licenses, and 0.2 percent of the farm income. Then theoretically the computed index of taxpaying ability of District A must be somewhere between 0.2 percent and 3.1 percent of the taxpaying ability of the state.

In order to meet the conditions of validity contained in our theoretical model, we cannot accept negative coefficients in our regression equation, and our net regression equation must be forced through the origin of our coordinate axes. It is mathematically valid to use negative coefficients and a Y intercept constant in regression equations. But we cannot accept negative coefficients or constant terms in regression equations used to estimate taxpaying ability, because if we do so, it is mathematically possible to compute an index of taxpaying ability for a school district which is greater or less than the value of any independent variable for that district. That is, we may compute mathematically from our regression equation that the taxpaying ability of a school district is either greater than or less than any evidence furnished by the independent variables. This is mathematically sound but it is an invalid result. This is especially true in states with small counties. Some years ago, I used the standard method of least squares for computing an index of taxpaying ability for the counties of North Carolina. The regression equation contained some negative coefficients and the taxpaying ability of two North Carolina counties was computed to be less than zero. The equation was mathematically valid, but the results were theoretically invalid. This is not surprising because the standard method of least squares was devised to minimize the sum of the squares of the total deviations from the regression line, not to compute a valid index of taxpaying ability.

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[12] *Ibid.*

In my judgment, theoretical models should be used more often by researchers in evaluating the findings arrived at through the use of statistical techniques. The use of such models will reduce the number of invalid conclusions drawn from statistical findings.

Negative coefficients will occur frequently in multiple regression equations either when the standard method of least squares or the new method of least squares presented in this paper is used. Negative regression coefficients frequently appear even if all zero order coefficients are positive.

How can these problems be solved? The elimination of the Y intercept constant causes no problem because the range in size of local school units in the states practically forces the net regression line through the origin or very nearly through the origin.

The elimination of negative coefficients presents a more difficult problem. The economic measures included as independent variables in the index all correlate positively with the dependent variable, but this does not eliminate negative coefficients in the regression equation. It is impossible to incorporate the mathematical condition in the predictive equation that all coefficients be positive. The only solution to this problem is to select independent variables that will result in positive regression coefficients and to obtain data as accurate as possible. Frequently negative coefficients result from including in the regression equation independent variables that correlate too highly with each other. Negative coefficients resulting from high intercorrelation of independent variables can be reduced by selecting variables with a low intercorrelation. Sometimes negative coefficients are caused by inaccuracies in data. Good data, of course, improve the accuracy of any type of statistical computation.

It appears that the difficulties of computing a valid index of taxpaying ability are very great. However, modern computers have eliminated most of the difficulties. A program has been developed for a 709 Computer, using the new type of regression formula developed by Meyer and me. Step-wise multiple regression methods can be used to test different independent variables. Minimizing the sum of the squares of the expression $\frac{Y_o - Y_c}{Y_o}$ can be used as the test of the goodness of fit of the regression equation. However, the derivation of a valid index of taxpaying ability is not for amateurs.

In conclusion, despite the use of the most advanced methods, it is not feasible to estimate the equalized valuation of property in a school district by an economic index as accurately as by determining equalized valuation directly. Therefore, if we desire to use equalized valuation of property as the measure of local taxpaying ability, it is recommended that we use equalized valuation determined by a competent state agency rather than an economic index in apportioning state equalization funds.

Historical Sweep of Measures of Local Ability in West Virginia

Phares E. Reeder

AT THE OUTSET, I do not want to leave the impression that what West Virginia has done in the way of property reappraisal is so outstanding that it should be used as a pattern for other states. Some years back, we simply were confronted with dire need for getting something done about property assessments. Our problem had been compounded by two facts: (a) In the early days of the great depression, 1932 to be exact, the people voted a constitutional limitation upon the tax levy rates for all purposes. In doing so, the constitutional change established four classes of property. The maximum rate for Class I was set at 50 cents for each $100 of valuation, being applicable primarily to personal property employed exclusively in agriculture. The maximum for Class II was $1, being applicable to all residential property which was owner-occupied, and to farms occupied and cultivated by owners. Class III, all other property situated outside municipalities, was assigned a rate of $1.50. Class IV included all other such property situated within municipalities, and carried a maximum rate of $2.

(b) The second fact pertained to the low assessed values. In spite of the narrow limitations placed upon the over-all rates which had to finance the public schools and municipal and county governments, county assessors continued to keep assessed values depressed.

Prior to 1947, the local share, in the computation of the foundation program, was determined purely on assessed value. This approach contained two basic weaknesses: (a) the state-wide inadequacy of assessed values, even though county assessors by statute were required to assess property at its true and actual value; (b) the wide variance among the counties in the percentage of assessed values to true values. This latter condition brought about criticism among the counties, charges and counter-charges. Since the local share was based upon the assessed value established by the assessor, one readily can understand the justification of the criticism. This local share had a direct effect upon the amount of state aid that a county would receive. You will be interested in knowing that we first tried to correct our assessment problem under the article of law pertaining to the valuation of property and the levying of taxes. The legislature, as well as the public, would have no part of it. Admittedly, we then proceeded to go into it by the back door—via the foundation school pro-

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gram and in the name of improved public schools.

The first major change took place in 1947 when a new state aid formula was put into effect. This formula, by the way, was prepared under the consultative direction of Lyle Johns and Edgar Morphet. A shift was made from total dependence upon assessed values to the use of an index system combined with property valuations. The index was based on such factors as retail sales, registration of passenger cars, net buying power as taken from *Sales Management,* population, the number of tax returns, total income, postal receipts, and consumer sales tax receipts. These factors were averaged and the result counted as one-third. A similar ratio of nonpublic utility property tax was determined and counted as one-third. And, in like manner, a ratio of public utility property tax was determined and counted as one-third.

The index system was used for approximately five years. However, it soon became evident that it contained an inherent weakness. The indexes used did a quite adequate job in measuring the economic ability of a given county —in other words, the cash wealth of the people. The unfortunate thing lay in the fact that the school system in its accountability for local share was held to the economic index, while the actual local-school dollars had to come from the property tax levied upon low assessed values. In other words, the cash dollars might have been in the county, but because of the index system local share went up and state aid conversely went down. Yet, the local-school dollar was controlled by the low assessed value.

Two other very important steps came out of the 1947 session. We took a first step in getting something done about property valuations at the state level. This provision required the tax commissioner to make surveys, examinations, audits, and investigations of the value of the several classes of property in each county. This was to be done, however, on a spot-check basis. In other words, sample pieces of property would be selected from the various classes, and types of property and the true value of such ascertained. Then, by a mathematical process, all other property of like classification would be adjusted in value simply for the purpose of determining the county-wide value of all properties in each of the four classes. Further, the new law stated that by 1949, local share was to be fixed on the basis of 50 percent of the new appraised values as determined by the tax commissioner through the spot-check process.

We soon realized that the job of getting something done about increasing the assessed valuation of property was destined to be a long and tedious process. Even the spot-appraisal system took a much longer time than originally was expected. As a result, the index system, under the 1951 act of the legislature, was extended through the fiscal year 1952-53. The 1951 act required that beginning with 1953-54, the local share would be computed by applying the allowable levy rate to 100 percent of the true appraised value, less the 5 percent for the usual loss in collections, divided by two. This simply meant the continuation of the concept of local share being set at 50 percent of the appraised value. However, the act provided that the application of the formula could be waived if curtailment of the school program should occur. The important thing is that the principle of establishing local share at 50 percent of the appraised value as determined by the tax commissioner was continued.

By the acts of the 1953 legislature, a new state aid formula was enacted. This did two things: First, it completely cast aside the index system and established local share at the 50 percent of appraised values as determined by the tax commissioner. Secondly, it mandated that the tax commissioner appraise the property in each county at least once in every four years. This appraisal, however, was to be continued on the spot-check basis. In spite of the fact that local share was established at 50 percent of the appraised value, providing the necessary equalizing factor among the 55 counties, the assessors continued to hold their assessed values at a low percentage—in fact, in many instances further depressed the values. They did so because they had learned that state aid would make up most of the loss.

Naturally, this situation could not be allowed to continue. So in 1955, further legislative action was taken. The tax commissioner was required to determine the appraised value by classification of property to be based on the true and actual value. Rather than make a survey every four years, appraisal was to be continuous, but on the spot-check basis. The most important aspect of the act, however, concerned the putting of teeth into the law insofar as responsibility of the assessor was concerned. This was done in this manner: In order for any county to qualify for its full allocation of state aid, the ratio of assessed valuation of all nonpublic utility property to the appraised valuation as set by the tax commissioner, had to be as follows: For 1956, the assessed valuation had to be increased to 35 percent of the appraised valuation; for 1957, to 40 percent of the appraised valuation; and for 1958, to 45 percent. Each year thereafter, the assessor had to bring his assessments to 50 percent of the appraised value as set by the tax commissioner.

Another important feature of the 1955 act was the penalty provision. If the assessor failed to reach the established percentage ratio of assessed to appraised values, state aid to that county was reduced. This compulsion upon the assessor had its intended effect in many counties. Assessed values began to come up all over the state. Unfortunately, a number of counties lost state aid because of the indifference or obstinacy of some assessors.

By this time, however, the conservative, anti-state-aid forces both within and outside the legislature had become ardent supporters of property reappraisal. Claims, possibly made in good faith, projected estimates of new money for education as high as $50 to $60 million. Educational leadership took a much more moderate view, emphasizing the partnership responsibility of both the state and the county in financing schools. The attitude of these people made our job easier because these forces were in the majority at that time.

So in 1958, we again were back to the legislature for the purpose of taking the next step. This action resulted in the establishment of a true state-wide property reappraisal to be carried out under the direction of the tax commissioner. The act, in part, stated: "The Tax Commissioner shall make or cause to be made an appraisal of all non-public utility property, both real and personal, in the several counties of the state . . . based on the true and actual valuation . . . and shall employ a competent appraisal firm or firms to appraise industrial and commercial property." The legislature appropriated $1.5 million to begin the reappraisal of all nonpublic utility property, and set 1961 as the target date for completion. The financing arrangement was on a 90-10 basis, with the state paying 90 percent of the cost.

The 1958 act was a culmination of many years of effort in working toward the attainment of a goal for state-wide reappraisal. The spot-check approach on a state-wide basis constituted an important preliminary step. I am certain that we never could have moved into the full reappraisal without having gone through most of the preliminary steps which I have outlined for you. The weaknesses of the spot check began to show up particularly after the 1955 act when the mandatory percentage ratio of assessed to appraised values was established. Some of the more alert and wily assessors discovered that they could go to the office of the state tax commission and get a listing of the sample pieces of property which were being used for the spot-check purpose. They simply increased the assessed values to the required percentage on these pieces of property only, and thereby met their percentage requirement because all other property mathematically was increased in a like ratio, but the increase was only on paper. It should be noted that under the 1958 act, local share was to be continued on the spot-survey basis until the completion of the reappraisal of the property in the respective counties.

By 1960, the property reappraisal was getting under way fairly well. By this time, however, all of us, including the legislature, began to realize that we had assumed a truly man-sized job—one that would take many more years to complete than originally was expected and at a cost of approximately $1 million per year.

Also, the penalty provision, provided under the 1955 act, for some time had been drawing the criticism of educators. We pointed out that when the assessor failed to bring his assessed values to the required percentage ratio of appraised values with the resultant reduction in state aid, the penalty in reality was against the children themselves.

For some time, I had been studying this penalty problem. One evening during the 1960 session, I was discussing the problem with one of the senators who was an ardent supporter of the property tax approach. I suggested to him the possibility of transferring the penalty over to the governmental body where it truly belonged, that body being the county court which serves as the board of equalization and review, the legal body having the authority to compel the assessor to do the job that he was supposed to be doing. I further pointed out that the requirement that assessed values should be 50 percent of the appraised values should apply to *each* of the four classes of property rather than to the total. He liked the idea and suggested that I prepare a bill, which I did. It was introduced by the senator and before the session adjourned, after considerable modification, became law. But the two basic suggestions were retained.

The penalty had this effect: If a county failed to raise the assessed valuation to the required level, it became mandatory that a temporary reallocation of tax rates be made to the county board of education *from the tax rates allowed the county court.* This truly put into the law the much needed teeth.

Another important loophole closed by the 1960 act concerned the spot survey which still had to be used for the determination of local share. We put into the law a proviso denying anyone other than the legislature itself, access to the sample pieces of property, and even this required a resolution.

Come the next January, we were back in the legislature with another property appraisal bill. First, the target date for the completion of the survey was moved up to January 1, 1964, and a continuing appropriation of a million dollars allowed in the budget. The strength of the 1960 act was even a little too much for the sponsoring senator himself. The requirement that the total assessed valuations in each of the four classes of property be set at not less than 50 percent of the appraised value, along with the penalty assessed against the county court, began to bring howls from a number of counties. You see, the 50-percent requirement applied not only to the full reappraisal being made in a number of counties but also to the spot appraisal.

The 1961 act provided some easement, especially for counties where the full appraisal had not been completed and delivered to the county. This was done by the establishment of another sliding scale. It provided that the assessor in 1961 had to increase the valuations one-third the difference between the valuations for 1960 and the 50-percent requirement; for 1962, he had to increase the valuations one-half the difference between the 1961 valuations and the 50-percent requirement; and then in 1963, he had to go all the way to the 50-percent requirement.

The legislative act of 1961 was exceedingly important from the point of view of clarifying the language and closing legal gaps that might have been questionable from the constitutional point of view. We were able to retain the penalty based upon the reallocation of county court levy rates in case the requirements of the law were not met. This, I believe, was the greatest single factor in forcing the increase of assessed values.

By the way, we also found it necessary to put into the law a provision whereby the county boards of education could freeze local share on the basis of the spot survey of property valuations. In other words, the local share would be computed at 50 percent of the appraised value as determined by the spot-check system. This was essential because counties wherein the full reappraisal had been completed could lose a disproportionate share of state aid if local share were based upon the complete reappraisal. Once the reappraisal is completed in all counties, there no longer will be a problem, for all counties then will move to the reappraised values and will be on equal footing.

In the 1963 session, we again had to move the target date up to July 1, 1966. One new provision was added. In counties where the reappraisal had been completed and the results certified to the county, the tax commissioner was authorized, under certain conditions, to allow the assessed valuations in each class of property to be set at less than 50 percent of the total appraised valuations of such classes of property, except that in the third year after the completion the 50-percent requirement must be met. Frankly, this proviso was put in to legalize what the tax commissioner had been doing. It simply meant another sliding scale, and in this case to take care of the impact of the total reappraised values which were hitting exceptionally hard upon the taxpayer of owner-occupied homes. This could have important public relations value, especially where excess levies and bond issues were at stake.

In conclusion, I report to you that our research estimates of the final results are not going to be too far off.

The claims earlier referred to were through rose-colored glasses. As of 1964, school tax revenue at regular rates had increased 134.4 percent, amounting to $24 million. Much of this increase can be attributed to the long tedious efforts reported in this paper. Possibly a more important aspect will be the equalization of values among the counties. I am convinced that the $10 million that the job will have cost the state will be money well spent.

Measuring Local Ability in Colorado

Kirk M. Sorensen

IN 1957, THE Colorado legislature enacted into law a measure designed to determine the equity of taxation on real and personal property. It became known as a Sales Ratio Study. A companion bill, called the Realty Recording Act, was designed to help implement the Sales Ratio Study.

The Colorado Constitution provides that "all taxes shall be uniform upon each of the various classes of real and personal property . . . and shall be levied, assessed, and collected under general laws, which shall prescribe such methods and regulations as shall secure just and equalized valuations for assessment of taxes upon all property."

The general assembly also resolved that "a sound and equitable program of state support of education requires that real and personal property in the several counties and school districts of the state be uniformly and equitably assessed."

Because significant differences in assessment levels were believed to exist, it was considered necessary to determine the actual facts. In order to determine the facts, a method had to be selected. After considering a number of possibilities, the general assembly selected the sales ratio method. In so doing, Colorado followed a number of other states which had selected the sales ratio method as one means of achieving greater uniformity of assessments.

A sales ratio is a means of determining the relationship between the assessed valuation and the sales price of property. In general, the sales price, in cases of bona fide, "arm's length transactions," is an indication of the market value of the property. If the sales price of a piece of property is $10,000 and it is valued, for assessment purposes, at $2,500, the sales ratio is 25 percent.

The sales ratio in Colorado was to be based upon information to be made available through the Realty Recording Act. This Act provided for the collection and analysis of conveyance certificates showing the sales price of property and the assessed valuation at that time. The purpose was to discover the extent of variations in levels or rates of assessment between or among counties, classes of properties in various areas, and classes of properties in the same area.

It is widely recognized by writers in the property tax field that sales ratio studies can provide the proper information upon which legislatures can lean when preparing tax legislation. However, it should be recognized that the sales ratio method is merely one of several tools and that the study must recognize several limitations.

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First, the study should be ongoing, since conditions change rapidly. A fuller utilization of the land could result in a radical change in the sales ratio. The variations occurring within such a study should be rationalized both by weighting of information and by an intelligent approach to the handling of the extremes.

If careful attention is given to the sales ratio method, it can be utilized to afford an equity of distribution to governmental units required to meet a specified standard of performance before state funds are granted. If each county is to make a specified effort, on an equalized basis, before it can receive state funds, it is imperative that such counties be aware of and use an equalization formula that will guarantee equity of effort.

Colorado recognized that in making a sales ratio study it was necessary to relate assessed valuations to sale prices that were representative of market conditions. Because many sales took place under circumstances which caused the reported sales prices to be far from realistic, *careful screening to eliminate* such sales was essential. Among the sales that were excluded were those involving (a) individuals related by blood or marriage, (b) affiliated companies, (c) governmental agencies, (d) eleemosynary institutions, and (e) transfers of convenience, such as those represented by correction deeds and sales of partial interests.

Investigations were made both by correspondence and by field checks of transactions that were questioned, for one reason or another. In many cases, this led to verification of the data reported. In other cases, it led to correction of reported data, and in still others, it resulted in an exclusion of the conveyance certificate from the study. As mentioned before, a basic consideration was that all usable certificates must represent arm's length transactions.

It was recognized, however, that there were many arm's length transactions not representative of general assessing practice. For example, in new developments the assessor often took the developers' rates until sufficient sales had been made to establish more realistic rates. This resulted in low sales ratios. Rapid development of areas between the times of assessment would also result in abnormally low sales ratios until reassessment time. Grazing land changed to cultivated land and sold prior to the next assessment date would not allow a proper sales ratio between the assessed valuation on the grazing land and the sales price on the cultivated land.

Economic activity, too, had an effect on sales ratios and was taken into account. Since the level of economic activity was expected to affect the amount one was willing to pay for a property, the sales ratio would be affected in like manner. The sales ratios based upon data for one year undoubtedly would have reflected such disparities. This emphasized the need for continuing the sales ratio study.

Upon receipt of the conveyance certificates, the staff separated them into three groups, namely (a) those that were clearly usable; (b) those that were clearly nonusable; and (c) those that required further information. Letters and field surveys resulted in making about 55 percent of the latter usable. The information was then coded onto punch cards.

Since wide variations existed in the sales ratios for certain types of property and since such variations could be accounted for but not used in the study, the middle two-thirds of the individual ratios for a given class of

Table 1.—Methods of Deriving Average Sales Ratios: County X
An illustrative computation

Class of property	Sales ratio	Assessed valuation	Market value	Average sales ratio
1	2	3	4	5
One-family dwellings				
1 to 8 years old	32.1%	$ 8,200,000	$ 25,550,000	
9 to 18 years old	27.3	5,800,000	21,250,000	
19 to 28 years old	25.8	6,200,000	24,030,000	
29 to 48 years old	22.6	12,300,000	54,420,000	
Over 48 years old	20.2	7,500,000	37,130,000	
All ages combined		$ 40,000,000	$162,380,000	24.6%
Multi-family dwellings	33.4	$ 5,100,000	$ 15,270,000	
Commercial buildings	36.1	7,600,000	21,050,000	
Industrial buildings	35.2	6,800,000	19,320,000	
Vacant urban land	18.4	3,500,000	19,020,000	
Total Urban		$ 63,000,000	$237,040,000	26.6%
Agric. land having impts.	27.2	$ 23,600,000	$ 86,760,000	
Agric. land having no impts.	24.1	5,100,000	21,160,000	
Misc. rural land having impts.	21.6	6,200,000	28,700,000	
Misc. rural—no impts.	19.0	2,100,000	11,050,000	
Total rural		$ 37,000,000	$147,670,000	25.1%
Grand total		$100,000,000	$384,710,000	26.0%

property was used. The method of weighting is shown in Table 1.

After an average ratio had been calculated for each class of property, the next step was to combine classes of property and compute a county ratio. For this purpose, the total locally assessed valuation for each class of property, which was supplied by the county assessor, was divided by the average sales ratio for that class to obtain an estimate of the market value of all properties in the class. This procedure was followed for all classes of property in the county, thus arriving at figures, the total of which represented market value of all locally assessed real property in the county. This total divided into the total valuation of locally assessed real property yielded the average sales ratio for the county.

The average state-wide ratio was determined by dividing total assessed value for the state by total market value. These two figures were obtained by adding the assessed values and the market values of all 63 counties.

The sales ratio study was abandoned in 1963 with the repeal of the Realty Recording Act. Since the conveyance certificates formed the basis of the study, and since the repeal forced an elimination of the certificates, the study died. It had shown, however, that many unequal assessment practices existed. Sales ratios ranged from 14.1 percent in one county to 40.9 percent in another. Rural areas showed an average of 24.3 percent against an average in urban areas of 29.5 percent.

The sales ratio idea failed in Colorado because of a variety of forces acting against it. The rural areas, which were shown to be undertaxed, influenced their legislators to help repeal the law. Urban legislators wanted to reduce the cost of taxes and help to promote a new set of criteria by which state support for schools was figured. The new criteria included adjusted gross income and assessed valuation per school district. Such a formula negated the need for a comprehensive sales ratio study since less weight was now being given to assessed valuation in the state aid formula.

It is important that we note that the sales ratio study failed, not because it was of little use, but because it pointed out inequities of taxation that had long been hidden for the benefit of the few. We must maintain our vigilance against those who would destroy for the sake of their own gain.

If the property tax is to remain as one of the main bases for taxation and the support of schools, it is imperative that we also remain true to the sales ratio idea as the best safeguard against inequity.

PART FOUR

Size-Cost and Structure

School District Reorganization: Implications for Financial Support

E. C. Merrill

THE PURPOSES of this brief paper are to review the more salient reasons for school district reorganization, to present a picture of the current status of district reorganization, and to suggest several pointed implications of district reorganization for the financial support of public schools.

This presentation leans heavily upon a recent publication of the American Association of School Administrators entitled *School Administration in Newly Reorganized Districts.*[1] This report was written by a commission, of which I was a member, to serve the practical needs of superintendents who must supply administrative leadership in newly reorganized school districts. The fact that the demand for such a set of guidelines was recognized and a special commission appointed to draft this publication is sufficient evidence that organizational changes between and among school districts should be included in a conference on "Trends in Financing Public Education."

Why the Agony?

It is fortunate that early scholars began their intellectual investigations by endeavoring to classify all things only as living or nonliving. This task had its problems and dilemmas, I am sure. But had there been school districts then and had these noble thinkers innocently sought to classify them, they would indeed have welcomed the hemlock. A cursory examination of school districts reveals all at once man's stupidity and dogmatism, his charitableness and sheer genius!

The school district is basically an organizational plan or unit intended to provide the best possible learning environment for children and young people. It is not an end in itself—it is a means to an end. Just as administrative and supervisory services, transportation and physical plants, instructional staff and materials are provided to facilitate increasingly better instruction, so is the school district itself created to provide the setting in which learning can best take place.

What, then, are some of the reasons for reorganizing the school district? Why go through this agony? Reasons do exist, and they are forceful ones.

The reorganization of a district may be necessary in order to improve edu-

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[1] American Association of School Administrators. *School Administration in Newly Reorganized Districts.* Washington, D. C.: the Association, a department of the National Education Association, 1965. 82 p.

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cational opportunities for children. This, of course, is the central and most valid of all reasons for reorganization. Reorganization can make available broader educational services; it can provide an increase in quality, or at least provide access to programs of higher quality for more children. When this is the purpose of reorganization, no arguments can long prevail against it. When this purpose does not figure at least to some degree in reorganization of a school district, the reasons supporting it may be quite valid indeed, but they lack the thrust which comes from concern with the primary function of education.

Population growth, decline, shifts, or other demographic realities may force consideration of school district reorganization. The shuddering realities of population growth are dramatized still further when we realize that this population will also be more and more fluid. Children will be moving increasingly from districts where schools exist into new districts where schools will be needed. Thus, communities will continue to change. Some will grow, fill up, spill over; others will wane. These changes have a terrific impact upon school district organization.

In view of the cost of education, the financial bases for school support become a cause for reorganization. Reorganization *per se* may result in noticeable, but seldom extensive, economies; it will usually, however, provide an improved tax base and a much better use of tax money for the support of schools. Of all the reasons for reorganization, this is one of the easiest for the public to appreciate. Even so, the complexities of school finance may make it difficult to communicate with the man on the street about the financial implications of school district reorganization.

The existence, availability, and use of school facilities also may create a need for school reorganization. Attendance areas control the flow of pupils to various schools. Attendance areas and attendance counts are used in virtually every school district as a basis for school income from state funds. Furthermore, attendance areas have a way of becoming indigenous to neighborhoods. Traditions and loyalties are woven around and about them. As neighborhoods change and schools become obsolete or new schools are built, pressures develop for restructuring the school district. Obviously, school plants should be utilized to capacity. Empty classrooms in one district and crowded classrooms in another are viewed by the businessman—and properly so—as poor management. When a new school is constructed, it should serve a real need, one that cannot be met by another existing facility. Often cooperative arrangements between school districts can be made so that one district with unfilled classrooms accepts children from a crowded district. The time usually comes, however, when most persons realize that such a "stop-gap" arrangement cannot be continued indefinitely.

Sometimes school reorganization is needed in order to provide more and better educational leadership. Adequate administrative and supervisory services are difficult to acquire, particularly in sparsely settled areas. We may like to think that we have an unlimited supply of instructional, supervisory, and administrative leadership. This is not the case. The development of leadership talent requires intensive academic and professional preparation, a solid background of experience, and unique personal qualities of insight, dedication, and energy. Such individuals are needed and sought by good school systems. There will never be enough of them to go around. School district reorganization may be required in order to attract and hold personnel of professional competence and leadership.

Thus, school district reorganization serves several purposes vital to the central function of education. They extend from improving the quality of the instructional program itself to satisfying many practical concerns of parents and even to determining the quality of leadership that can be obtained by the district. These purposes are based on the kinds of schools a community wants, its traditions, its financial resources, and common sense; they generate tremendous pressures that cannot be ignored and that can seldom be avoided.

The Path to the Present

School district reorganization may involve as few as 15 or 20 pupils (the closing of a rural school), 700 pupils (the combining of two or three independent districts), or substantially more than 100,000 pupils (the consolidation of a county and city school district within a metropolitan area). The nature of the districts involved establishes at the outset such factors as the extent of change, its impact, the number of persons affected, and what reorganization really means.

The number of school districts has declined at a rapid pace, as is shown in Table 1.

Reorganization of school districts, whether in New England, the South, the Central states, or the West Coast, will continue. This, then, is the forecast of one thing to come: the continued merging and consolidation of school districts resulting in larger organizational patterns throughout the United States.

Table 1.—Trends in the Number of School Districts

Year	Number of school districts	Percent of decrease
1	2	3
1932	127,649	....
1948	105,971	16.98%
1953	67,075	36.70
1961	36,402	45.73
1963	31,319	13.96

Source:
American Association of School Administrators. School Administration in Newly Reorganized Districts. Washington, D. C.: the Association, a department of the National Education Association, 1965. p. 24-25.

A second important trend is in the direction of consolidating even large units. It is obvious on the basis of the data presented that many small school systems are combining to form bigger ones. It is also true that reasonably large school systems are combining to form metropolitan districts. When a large, well-populated county combines with a city, the public-school pupil population may expand to 100,000 or more. Examples of metropolitan school districts are Dade County-Miami, Florida; Mecklenburg County-Charlotte, North Carolina; and Davidson County-Nashville, Tennessee. In some instances consolidation includes all public departments and offices as well as schools, and complete metropolitan goverment exists. The reorganization of a school district, then, can be a part of a larger plan of reorganization of local government and local public agencies. As metropolitan areas continue to grow and boundaries between and among county and city school districts vanish, more and more consolidation of large units will occur.

Still other trends in reorganization are discernible at this point. There is an increasing tendency for school districts adjacent to each other to remain autonomous but to establish cooperative boards for specific purposes and functions. New York State with its boards of cooperative service has pioneered in this type of structure which assists the school district having a sparse pupil population to acquire skilled professional services. (Unfortunately, arrangements such as this can become expedient and postpone basic reorganization long after it is due.) Various cooperative arrangements constitute structural adjuncts that serve useful purposes and can be used as steps toward evolving a more adequate reorganization.

Some recognition should be given to the increase in the incidence of reorganization within large school districts. New York City, Chicago, Atlanta, and several other very large school systems have moved toward internal districting and the establishment of administrative units within the total school system. This has the obvious advantage of keeping school administration and clientele relatively close together, of preserving a large tax base for all schools, and of co-ordinating and centralizing administrative control and leadership. Thus, as districts grow very large, there will be an emphasis upon establishing more formalized internal structure, which also is an important form of school district reorganization.

The Support Dimension of School District Reorganization

The foregoing comments serve to demonstrate the interrelatedness of every aspect of school districts. Whenever a school district is reorganized in virtually any way or to any degree, the support dimension is directly affected. It subsequently becomes more or less, easier or more difficult, broader or narrower, or perhaps different in kind.

In order to make the implications of district reorganization for financial support more specific and more interesting, each will be stated as a hypothesis. (To state each as a null hypothesis really would be more useful and more thought-provoking, but subject to misinterpretation by the casual reader.) A key assumption concerning the following hypotheses is that district reorganization is in the direction of consolidation or unification.

In view of this assumption that school district reorganization today primarily involves the consolidation or unification of smaller units, the first hypothesis is a fairly safe one, although not profound. H_1: Reorganization of school districts broadens the base of tax support.

One of the difficulties in financing schools comes from real differences in property values. Variations in funding ability between school districts often bring about strong feelings and attitudes of frustration and bitterness. Without enough taxable wealth, adequate support cannot be produced for an educational program which is desperately needed and exhaustively sought. H_2: Reorganization of school districts reduces variations in taxpaying ability.

Inasmuch as the property tax predominantly serves as the source of local funds, even though the state may have a minimum foundation program, the problem of equal assessment of property is always present. H_3: Reorganization of school districts introduces greater equity into the tax structure.

The constituency of a school district expects its board of education to plan in advance and ask for funds only as they are needed. Unexpected increases in the tax rate provoke many irate questions and attitudes of distrust. H_4: Reorganization of school districts stabilizes tax rates (reduces frequent fluctuations).

The wise use and protection of school funds is a continuing concern of school boards. As adequate funding is difficult even in the best school districts, it is vitally important that the total allocation be used for educational purposes. H_5: Reorganization of school districts increases the prudential function in the management of school funds.

A local school board must be in a position to adapt its program to meet unforeseen needs. This calls for flexibility on the part of school management in the use of funds. H_6: Reorganization of school districts increases flexibility in the management of school funds.

Many states recognize that small school districts are more expensive to operate. In order to expedite the unification of small districts, the state minimum foundation plan may reward districts for unifying. H_7: Reorganization of school districts increases per-pupil state assistance from minimum foundation programs.

It is inconceivable that any two or more school districts could combine and not wish to incorporate the assets and outstanding qualities of each into the new district. In other words, an effort would be made to "level upward," a process which always requires greater expenditures. H_8: Reorganization of school districts increases the per-pupil expenditure.

These hypotheses most surely need to be tested. There is no sophisticated research at this time which supports their acceptance or rejection. That school districts will continue to be reorganized is a reality. Therefore, it is imperative that our research endeavors include careful attention to those problems of finance which are unique to the newly reorganized school district.

Fiscal Independence of School Systems

William D. Firman

THE ISSUES relating to the extension of fiscal independence and administrative responsibility to school systems have been vigorously debated for more than half a century. Fundamentally, the question relates to whether or not educational policy formulation can be separated from financial policy formation. At base, the question resolves itself into the following: Is it possible for a school board, especially in a municipality where expenditure pressure is severe, to have a viable fiscal responsibility without fiscal independence?

Conventional budget theory holds that the ideal resolution of competing claims on revenue resources is best found when all claims on tax resources for any related group of functions are considered at one level of responsibility. The assumption here is that claims on tax resources have quantitative differences rather than qualitative differences.

Such is not the case in education, however; and it is at this point that the professional educator has to part philosophical company with the political scientist and business administrator. The claims of education are clearly qualitative as well as quantitative. The schools cannot apply uniform specifications to their inputs, nor to their processes, nor to their products. They deal with human beings who are as variable in characteristics as they are numerous; and there is no place for more rejects in the human scrap pile.

Since, moreover, the application of this theory must rest upon the assumption that education is a municipal function, not a state function, the theory cannot be applied, at least not in the state of New York, for there the courts have held that education is a state function.

> If there is one public policy well established in this State it is that public education shall be beyond control by municipalities . . . the board of education is not a department of the city government. (*Divisich v. Marshall,* 281 New York 170)
>
> Public education is a state and not a municipal function. Boards of education are branches of state government charged by the state with the administration of its educational system. (*Hirchfield v. Cook,* 227 New York 297 and cases cited there)

In still another sense, the conventional budget theory seems to lack ready application to current fiscal circumstances. When municipalities are pressed on the revenue side and adjudication of expenditure requests rests with an authority which has had no part in developing educational expenditure requests, fiscal responsibility becomes very obscure and it can be said that it really does not exist at all. This approximates the situation in which fiscally dependent city school boards

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find themselves at present. Municipal authorities pass upon requests for expenditures based upon the deliberations of the school board, deliberations in which they have played no part and for which they are not responsible.

From the standpoint of sound educational planning it is essential that the same body which is responsible for formulation of policy be empowered also to finance the undertakings which their judgment determines are required. Each of several recent sessions of the state legislature in New York have considered resolutions which have as their purpose the establishment of fiscal independence for five or all six of the large city school systems in the state, through constitutional amendment. These have failed of passage as a consequence of opposition or non-support from one or another of these large cities.

It is the position of the State Education Department in New York that underlying the solution of any other educational problem in our large cities is the need for fiscal independence and responsibility, with independent taxing authority and a modification of present constitutional tax limitations. At the present time these six units of school government are the only units of school government in the state which function fiscally as units of municipal government. These boards of education are the only boards of education which are not free to establish their budgets in terms of the educational needs of their communities, to levy the taxes which are required for the support of the educational program, to receive state aid for the support of their schools, and to spend their resources in accordance with their budgets. The problem is further complicated by the fact that there is a single combined constitutional tax limitation of 2 percent (2½ percent in New York City) for the support of all functions of municipal government including the support of the school system, and this limitation has not been sufficiently flexible to permit the schools to respond to the demands of increasing enrollments, the eroding effects of inflation, the special problems of the disadvantaged or segregated, and the needs of our times for better quality education. As a matter of fact, there is little or no tax leeway in any of these six major cities between that which they are now levying through local taxation on real estate and that which they are permitted to raise.

Analyses of Financial Health

Several types of analyses are frequently used in assessing the financial health of school systems. One of these is a comparison of the expenditure levels of school systems; another, a comparison of the wealth levels; and a third is a comparison of the tax rates. The comparison of the expenditure level of a single school system or a group of school systems, on the average, with the other school systems of the state for a given period of time assumes that the number of dollars which are spent per pupil per year is a rough measure of the comprehensiveness and/or the quality of the school. That is to say, differences in expenditure level indicate such differences in the educational program as the numerical adequacy of the staff, the availability of specialized services, the availability of instructional materials, the comprehensiveness of educational programs, and so forth.

Comparisons of the wealth levels are similarly helpful in that this is a measure for assessing the relative ability of school districts to provide for their educational needs. In the same way, comparisons of tax rates provide a measure of local effort in the support of school programs.

Concern for the serious problems of these large cities, the only fiscally dependent school systems in the state, led to a comparison of their expenditure levels, wealth levels, and tax rates with those of the other school districts, state-wide, for the years 1957-58 through 1964-65. The questions for which answers were sought are:

1. Are these large city school districts spending as many dollars per child for educational purposes as are the other school districts of the state, on the average?
2. How does the financial ability of the large city districts compare with that of the other school districts in the state?
3. In the six school districts, do the tax rates for school purposes indicate an effort comparable to the effort of the other school districts, on the average?

A comparison of expenditure levels for the years indicated showed that only two of the six large districts spent more per pupil than did the school district at the state median. In 1957-58, the large city at the lowest extreme had a current expenditure per weighted pupil which was $35 below the state median. By 1963-64, this district was $113 below the state median. In the present year it is estimated to be $143 below the state median. It was also observed from the data that two of the large cities have consistently had expenditure levels above the state median, that two others have had expenditure levels near the state median; and that the other two have always had expenditure levels below the state median.

In comparing the wealth levels of these six large cities with the average for the state, it was found that in 1957-58, the median wealth for the group was $28,449 per pupil, or $13,218 above the state-wide median of $15,231. Moreover, this difference has increased in succeeding years to nearly double that of other school districts of the state. Therefore, generally it must be concluded that these districts do have sufficient wealth resources, themselves, to provide significant increases in their expenditure levels.

In making comparisons of tax rates for school purposes, it was found that in 1957-58, tax rates ranged from a low of $8.94 per $1,000 of true value in one city to a high of $13.48 per $1,000 in the city with the highest tax rate. The median for the group was $11.40, $1.46 below the state median of $12.86.

In 1958-59, the range was from a low of $9.82 in the low effort district to a high of $14.20 in the high effort district, with a median of $11.44; $2.53 below the median for the state that year, $13.97. This level of effort was repeated in each of the years studied, so that by 1963-64, the range of tax rates for school purposes was from a low of $9.17 to a high of $13.94 with a median of $10.65; $2.85 below the median for the state that year, $13.50.

Generally, it must be said on the basis of these analyses that with the partial exception of our largest city, none of the large city school districts in New York State taxes itself for school purposes at a level equal to the state-wide average of taxation for all of the school districts. Indeed, even the largest of our cities undertaxed itself for two of the five years studied.

The Trend To Extend Fiscal Independence

The efforts being made to extend fiscal independence and administrative responsibility [illegible] the large city school districts of New York State are simply the continuation of a pattern which brought such independence to the 56 smaller cities in 1950. Three decades of experience with fiscally dependent school districts had produced a general conviction among both school and municipal administrators that a new basis of city-school fiscal relationships was required.

In 1947, the state comptroller designated a committee of representative citizens to review a broad agenda of measures bearing upon these relationships. The recommendation of this committee was to begin with the smaller cities, to grant them fiscal independence and responsibility with independent taxing authority. To make this possible, the state constitution was amended in 1949 to provide separate tax and debt limits for them; and in 1950, fiscal independence was granted. The "big six cities," however, remained fiscally dependent upon the municipalities with which they were, in each case, coterminous.

The proposal for the extension of fiscal independence on a permissive basis to Buffalo, Rochester, Syracuse, Albany, Yonkers, and New York has been made in recognition of the general financial pressure upon them, with a consequent hazard that adequate resources to plan and maintain a superior educational program will not be continuously available. Tax leeway has already become a serious problem to all. Indeed, under the circumstances, fiscal responsibility of school boards has ceased to exist because of the budgetary discipline which municipal authorities have been forced to assert.

Meeting the Criterion of Adequacy

Currently, of course, the school districts of the state must respond each year to the pressures of enrollment growth, competition for professional staff, demand for quality improvements, needs or desires for special types of educational programs, changes in standards of living, variations in the socioeconomic complex of the population, population mobility, and many others. Each of these forces exerts its impact upon the fiscal policies of the districts and the magnitude of the impact varies from district to district. The fiscal responses of the individual districts are related to their community goals, needs, and aspirations. They are circumscribed by the controls of wealth, state regulations, type of professional leadership, and the responsiveness of individual communities to change. Whatever the forces and controls may be, decisions are finally made. These decisions are expressed in the number of dollars spent each year to fulfill these goals.

For the nation as a whole last year (1963-64) total public-school expenditures for elementary and secondary schools amounted to approximately $21.2 billion; and for the current year (1964-65) it is estimated to be approximately $22.7 billion. If it were to be assumed that the pattern of school expenditures for the next 10 years will follow the pattern for the last 10 years, it is reasonably prudent to predict that total expenditures in 1974-75 will amount to $49.7 billion, an increase of 113 percent over the present year.

On the other hand, this assumption fails completely to provide for major improvements in the educational system which might be described as imperative. Expenditures in this magnitude could do little more than permit the continuation of an educational system which is generally better oriented to the life of 19th century America than it is to the space age.

There is really no perfect model available for our use in estimating the probable cost of education in the years ahead. Candidly, it can be said that there is no state system of education nor any single school system which is universally effective in assuring that all children will learn. On the other hand, some states and some individual school systems have been more adaptable than others in responding to the educational needs of their people. These, of course, have been states and school systems which are favored with sufficient financial resources to permit themselves to respond to the needs for change. New York might be considered one such state; and there are, of course, several individual school systems in the state with sufficient resources of their own to provide excellent school programs.

New York's public elementary- and secondary-school expenditures are estimated to be $2.6 billion in the present school year (1964-65) and are expected to reach approximately $3.8 billion by the school year 1969-70; and are predicted to be approximately $5.4 billion by the school year 1974-75. On a unit basis, the total expenditure is $821 per pupil in the current school year and the level of expenditure has been increasing at the rate of approximately 7 percent per year.

While New York has not solved all its educational problems, it has been moving constructively and effectively to correct weaknesses and to strengthen and improve the quality of its schools. Thus, the expenditure experience of New York State could be a measure of what it costs to adapt the educational system of a state to the needs of its people. The fiscally dependent status and limited taxing authority of the six largest school districts in the state present a serious challenge to the educational adjustments which will need to be made. This is particularly so because these six school districts enroll more than half of the pupils of the state, and the real property upon which the tax limit is applied represents more than half of the value of the state.

Limitations on Taxing Authority

Some form of check on taxing authority must, of course, accompany fiscally independent status. Two checks are possible: a referendum of the electorate and a constitutional or statutory tax limit. In cities larger than 125,000 population, the latter option is probably the only manageable one. What, then, might become the level of such a limit?

When fiscal independence was granted to the 56 cities with less than 125,000 population, a division of taxing authority between school authorities and municipal authorities became necessary. It was decided at that time that the tax limit for school purposes should vary between 1.25 percent and 2.00 percent with the provision that where less than 2 percent, the limit could be increased in any given year by 0.25 percent, until it equaled 2.00 percent. Such increases in the limits require affirmative votes of 60 percent of the electorate. It appears that similar arrangements would be appropriate for the "big six cities" since the variation among them in tax levels ranges from 0.75 to 1.40, with a median at 1.05.

However, another factor needs consideration in determining the magnitude of the tax limit. It is the fact that during the next 10 years, educational expenditures state-wide will in all likelihood increase more rapidly than will the growth of economy. This, of course, will require an increase in the rate of taxation for school purposes at all levels of government. The significant point here is that under ordinary circumstances property assessments tend to lag behind the growth of the economy, and the imposition of a nonrealistic limit on property could frustrate the ability of the school boards to respond to their needs.

Responsibility Related to Fiscal Independence

Eight practical tests can be used to assess the relative degree of independence of a school system:

1. *Budget*—The board of education has the power to establish a budget for the ensuing school year.

2. *Taxing power*—The board of education has the power to levy taxes needed to meet the budget.

3. *Adequacy*—The board of education has an adequate tax base within the school district for providing the local share of education.

4. *Limits*—If legal requirements set limits for a tax rate and/ or indebtedness of the school district, the maximum limit as applied to the tax base is sufficient to permit raising the amount required for the support of schools.

5. *Leeway*—If constitutional limits are placed upon tax leeway and/or indebtedness for schools, the limits are sufficiently high to permit the board of education to engage in realistic, long-term planning, at least for five years.

6. *Accounting*—The board of education has the right to spend funds within the total amount of the budget, to keep its own books of account, and to provide for adequate auditing and reporting of revenue and expenditures.

7. *Responsibility*—Citizens and staff deal with only one local body, the board of education, in every appeal related to education and its support and control: in presenting ideas, making requests, asking for information, and questioning policies and decisions.

8. *Response to educational needs*—The fiscal powers of the board of education are sufficiently adaptable and flexible to permit the adjustment of educational plans to changing situations and emerging needs.

Fiscal Responsibility in Major Cities of the Nation

For the purpose of determining the prevailing practice in large cities outside New York State, the Department's Bureau of Educational Finance Research has applied these criteria of fiscal responsibility to the cities of Baltimore, Md. (population 939,024); Chicago, Ill. (population 3,550,404); Cleveland, Ohio (population 876,050); Detroit, Mich. (population 1,670,144); Los Angeles, California (population 2,479,015); Minneapolis, Minn. population 482,872); Philadelphia, Pa. (population 2,002,512); Pittsburgh, Pa. (population 604,332); Rockford, Ill. (population 126,706); South Bend, Ind. (population 132,445); and St. Paul, Minn. (population 313,411). These cities were chosen at random to represent practice in various geographic areas of the country and to provide some comparison on a population basis with the major cities in New York State.

Thus, it will be noted that while there is no city as large as New York (population 7,781,984), the sample does include other very large cities, such as Chicago, Detroit, Los Angeles, and Philadelphia, for purposes of comparison. In the same way Rochester (population 318,611) and Syracuse (population 216,038) might be compared with Minneapolis and St. Paul. Yonkers (population 190,634) and Albany (population 129,766) can be compared with South Bend and Rockford. Buffalo (population 532,739) is similar in size to Pittsburgh and Cleveland, although both are larger.

The data for this survey were gathered by telephone interview with the superintendent of schools in each of the cities named or his representative.

It was found that:

1. All 11 of these districts prepare their own educational budgets.

2. Eight of these large cities have independent taxing authority.

3. Five of these school districts have tax sources other than real property tax base for educational purposes.

4. Seven of the districts have sufficient tax leeway for further taxation because they operate without a real property tax limit or because they have sources other than real property tax.

5. Seven of these districts have their own accounting units, while the remaining four share this responsibility to varying degrees with municipal authorities.

6. Of the 11 districts surveyed, eight consider themselves to be completely fiscally independent, while the other three, Baltimore, Philadelphia, and St. Paul, consider their boards dependent.

7. Five of the large cities surveyed may be said to have complete or almost complete fiscal independence on the basis of the criteria described—Los Angeles, Minneapolis, South Bend, Chicago, and Cleveland. Three of these school districts have elected boards of education, and two of them have appointed boards of education.

Nationally, these large cities have demonstrated that it is possible to operate on the principles of fiscal independence and responsibility. In our own state the 56 smaller city school districts, some of which approach in size at least the smallest unit in this group of five city school districts, have been operating for over 10 years on the principle of fiscal independence and responsibility; and the experience has been good. The principle has worked well. It should be pointed out, too, in this connection that seven of these 56 city school districts now have appointed boards of education.

Almost everyone agrees that many of the large city school systems in America are in trouble. They have obviously been caught in a vortex of social and economic change. They have been frustrated in adjusting their program to the demands which are being placed upon them. The Conference of Large City Boards of Education in New York State and the Council of the Great Cities, nationally, have been attempting to study the problem, and have recommended programs designed to provide greater access to financial resources.

Several proposals have been advanced, including that of extending fiscal independence and providing independent taxing authority. Other proposals have included corrections for "municipal over-burden," provision of a "density" correction, and "weighting" the units of educational need in state aid formulas to reflect variations in the cost of specialized types of educational programs. All these proposals have considerable merit, but they also have weaknesses which need to be corrected if they are to become a part of any permanent fiscal arrangement. In the meantime, however, the pressure to provide relief to these cities continues to mount. They need help and they need it now. They cannot wait for the results of further studies which will eventually refine the measures of need, wealth, and effort. It is for this reason, more than any other, that New York State is already providing a so-called "density" factor in the apportionment of state aid to the large city school districts.

Conclusion

In this year of 1965 the alert observer is impressed with the overpowering realities of upheaval and unrest: social, economic, and political. Some of the predictors of educational change will be found in these and other forces which exert their influence largely outside the school. Problems of integration, social class polarization between the central city and its suburbs, a crime rate increasing disproportionately to the increased population, and the growth of megalopolis which provides an anonymity to the individual are all indicative of major social problems which demand attention. Economically and technologically, the development of automation, world-wide competition with cheap labor, changes in communication and transportation, the accelerating needs for mass production and mass distribution, and unemployment are all realities of our day. The effect of these realities, in terms of the human being, are already apparent. Unless we can move dynamically into a program for retooling our human resources, unemployment will increase and social unrest will become explosive.

While the schools themselves do not have the capacity to provide solutions, they do have the responsibility for adapting their structure and their programs to these emerging needs. The real problem is that of providing all youngsters, regardless of their race, or their socioeconomic background, or geographic location, or any other consideration, with an opportunity to learn. This problem is not unique to the city school districts. It is a problem common to all the school districts of the nation and a problem requiring a solution for all of them. The criterion of equity demands that the solution be found within the framework of general aid formulas which apply to all of them rather than through the creation of a series of special aids.

The ultimate solution to the problem of improving equality of educational opportunity will depend in part upon the accumulation and analysis of facts not available at this time. Historically, state support programs for education have assumed that the expenditure of a given number of dollars per pupil, on the average, has the effect of equalizing educational opportunity. This assumption must now be tested, and if it is found that communities do vary in the proportion of pupils with special educational needs, and if it is found that the cost of providing education to a minimum acceptable level is greater for some students than for others, justice demands that these differences be taken into account in revisions of basic aid formulas.

In the meantime, there is need to strengthen the administrative and financial arrangements which are a part of the prevailing structure. This includes the need to extend fiscal independence. It also includes the need for independent taxing authority and modifications of existing tax limits in all units of school government. It is the position of this thesis that it is not possible for school boards to have viable fiscal responsibility without fiscal independence.

The Size-Cost Relationship in Public Schools

Nels W. Hanson

THE CONCEPT OF equal educational opportunity underlies much of our thinking in school finance. Though the term refers to the educational program to which children are exposed, it finds expression in our financial arrangements through our equalization efforts. To achieve this objective of equality, elaborate distribution formulas have been enacted. These imposing, well-intentioned devices are revised and amended periodically to assure ever higher levels of educational equality. If a given number of dollars for each pupil would guarantee an equal program in every school, distribution formulas could be greatly simplified. But such is not the case.

Certain characteristics of the institution, its pupils, the program, or the district's geography cause costs to be higher for one district than for another. Insofar as the characteristics of one district cause higher unit costs than in another, we shall find that an equal number of dollars will provide programs of unequal quality.

This report describes the results of one analysis to determine the influence of one institutional characteristic upon unit costs. That characteristic is district size. Inasmuch as the financial decision-makers seek to maximize the social idea of equal educational opportunity through equalization formulas, this study has particular relevance. If districts of one size experience institutional costs not encountered by districts of another size, the guaranteed level of expenditures becomes a misleading criterion for equality. Unless the added financial burden of this variable is recognized in the allocation of resources, the level of service in some districts will be reduced by the amount of the added cost.

On the other hand, if this variable is suspected of imposing a significant burden, which in reality it does not, this report may be useful in dispelling a suspicion that lacks empirical support.

If size is financially important, district organization in the United States certainly reflects a varied picture.[1] The 30,000 districts in the United States today range in size from one pupil to over 860,000. Nearly 40 percent of our children are enrolled in 1½ percent of our school districts, each enrolling over 12,000 pupils. On the other

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[1] U. S. Department of Commerce, Bureau of the Census. *Governmental Organization.* Census of Governments, 1962, Volume 1. Washington, D. C.: Government Printing Office, 1963. p. 37.

hand, less than 1 percent of our children are enrolled in 30 percent of our districts, each enrolling fewer than 50 pupils. The remaining children are enrolled in districts with enrollments between 50 and 12,000. If size has a financial impact, this range is one that should be most conducive to empirical analysis.

Present Practice

The size of a district has long been recognized as a variable which influences unit costs. The distribution formula in most states includes a correction factor to compensate districts where size has a conspicuously adverse effect. In all but one state with a correction factor for size, however, this adjustment is directed only at the very smallest districts.

Theoretical Basis for a Size-Cost Relationship

Economic theory since the time of Adam Smith has recognized the influence of size on unit costs. Unit costs are usually high for a small volume of output. As an enterprise increases in scale, its production cost per unit of output declines. This phenomenon is called "economy of scale." Economies of scale of an enterprise are said to arise when larger investments of the inputs result in lower costs per unit of output.

There are two major reasons for this relationship. The first is the indivisibility of some factors of production which cannot be fully utilized in a small enterprise. Optimal proportions can be brought together with precision only when aggregate inputs are large. For example, it takes one teacher to staff a classroom, whether it holds one pupil or 30. Only as the enterprise becomes larger can the optimal mix of inputs for maximum efficiency be achieved. The second reason for economy is the greater specialization of both the staff and the technological resources that can be attained when the aggregate number of each becomes larger. An increase in efficiency results from the greater division of labor and the specialization of the talent and tools which go into the production process. The cost curve of an expanding enterprise that is enjoying the benefits of economies of scale might look something like cc′ in Figure I.

But the higher utilization of inputs and increased specialization of talent in a larger organization do have a price. The enterprise becomes more complex. This leads to increased complexity in the functions of management. More elaborate systems of control are made necessary by the impersonal relations that result, and this in turn leads to more rigidity in procedures and the stifling of individual initiative.

A conceptual basis for complexity, and ultimately costs, can be found in the two dimensions to the management function which have relevance here; they are supervision and coordination. The supervisory role of management ensures that everybody does the job expected of him and sees that commitments made are carried out. As size of an enterprise increases, the supervisory function increases arithmetically, thereby having little effect upon unit cost. Coordination, on the other hand, is concerned with adjustments which the organization must make to both environmental and internal changes. The ability to adjust is a function of the coordinating capabilities of the enterprise. Rather than increasing arithmetically as in the case of supervision, the requirement for coordination has a multiplying effect. This cost of "keeping every-

FIGURE I. DECLINING UNIT COSTS

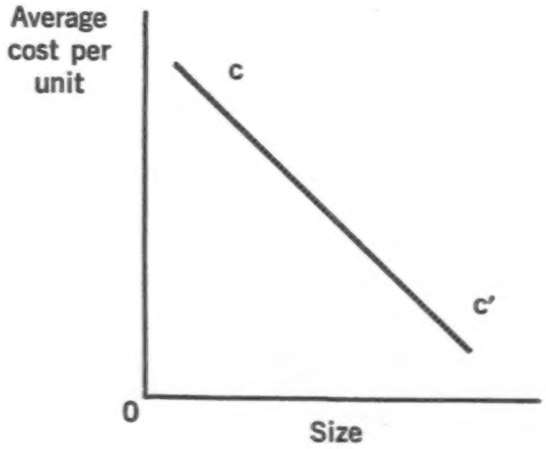


FIGURE II. RISING UNIT COSTS

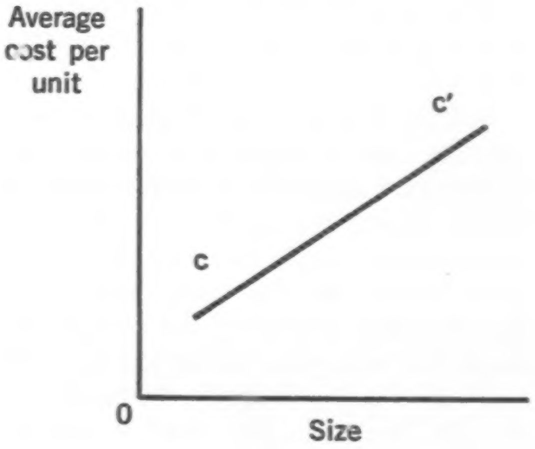


FIGURE III. PROGRESSIVELY RISING UNIT COSTS

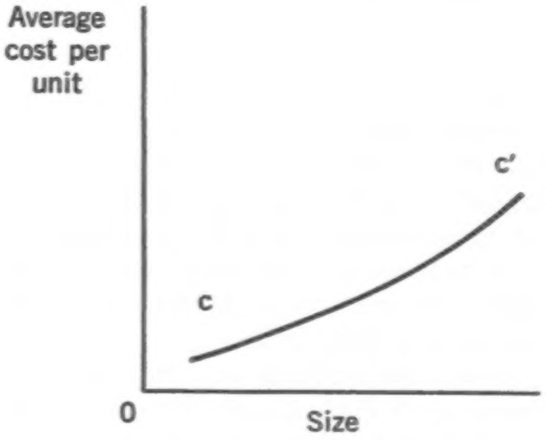


FIGURE IV. THE LEVELING OUT OF DECLINING COSTS

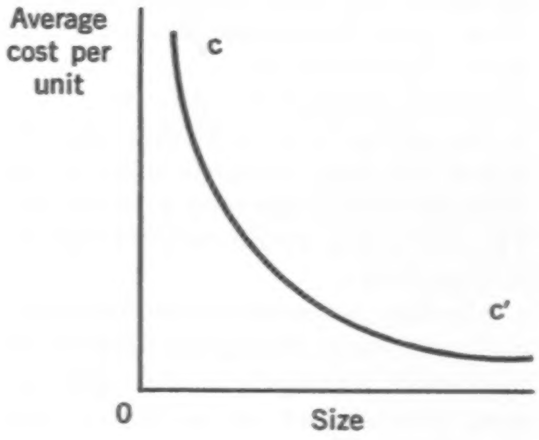


FIGURE V. ECONOMY OF SCALE

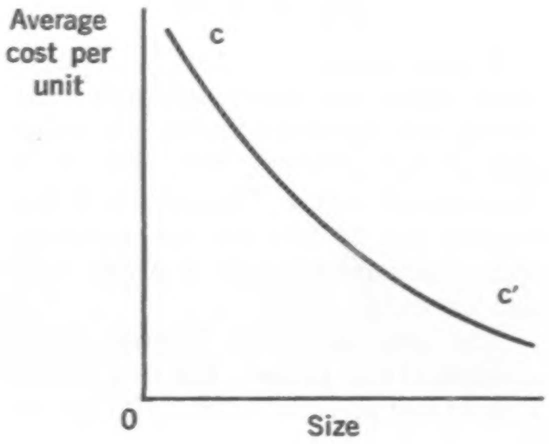
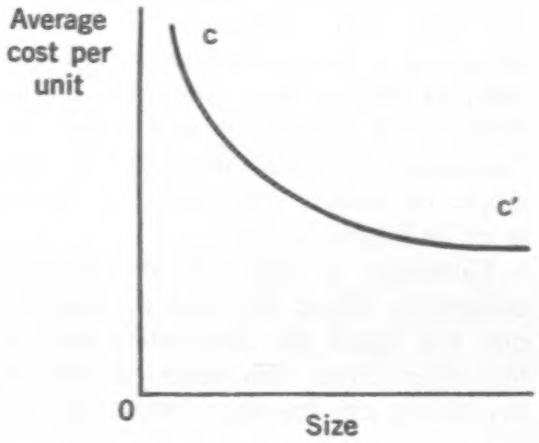


FIGURE VI. CONSTANT RETURN TO SCALE



one pulling together" rises progressively with increasing size of the enterprise.

Theoretically, then, a cost curve representing managerial complexity might look like cc′ in Figure II.

Before bringing the two processes together into a single cost curve, one further characteristic of each should be noted: First, the additional costs for management and co-ordination rise very slowly in the early stages of growth; then, as managerial complexity intensifies with size, the increase in unit costs rises more abruptly. Instead of a straight line, the cost curve would be more like cc′ in Figure III.

And, second, the reductions in unit costs due to a higher utilization of inputs and specialization are more abrupt in the early stages of growth. Then, with increasing size, more and more "indivisibilities" are gradually overcome. Instead of a uniform decline in average costs, a rapid drop appears at first and then, as inputs approach an optimum mix, costs tend to level out. This cost curve would be more like cc′ in Figure IV.

The two processes occur simultaneously, of course. During the early stages of growth, the slowly rising costs for management and co-ordination are completely submerged by the overwhelming gains from further specialization and improved input mix. As the enterprise continues to increase in size, the unit costs continue to decline, though at a less precipitous rate. However, as long as their combined effects result in a decline in unit costs, an "economy of scale" prevails. An example of such a cost curve is shown in cc′ in Figure V.

However, a size will be reached eventually where the added costs for one will equal the diminished cost of the other. From this point on, one of two things can happen: Either (a) the equilibrium continues with increasing size of the enterprise to infinity. This phenomenon would be described as a "constant return to scale," and is shown by the line cc′ in Figure VI. Or, (b) a disequilibrium again appears as the gains from specialization and improved product mix further exhaust themselves while managerial complexity continues to intensify. The increase in unit costs due to the latter outweighs the gains from the former, and a "diseconomy of scale" arises. The average cost curve in this event would be similar to cc′ in Figure VII.

Returning now to the problem to which this study is directed, our interest is in relating these constructs to the behavior of unit costs in the public schools. However, if they do have implications for education, one further aspect should be considered. Rather than look only at the effects of size on average costs, we should focus on marginal costs: that is, what are the added costs for each additional pupil when enrollment exceeds the optimum? The path which marginal costs might follow in relation to average costs is shown in Figure VIII.

Some theoreticians say that the cost curve must always look like this, since there must be some size which is most efficient, on either side of which costs will be higher.

The Analysis

If these concepts are true for schools, there must be some optimum size where unit costs are lowest. On either side of this optimum, unit costs could be expected to rise. The purpose of this inquiry was to find the optimum and then determine the rate at which costs rise on either side.

The analysis which I shall report consists of two studies. The first looked only at districts with over 1,500 pupils.

FIGURE VII. DISECONOMY OF SCALE

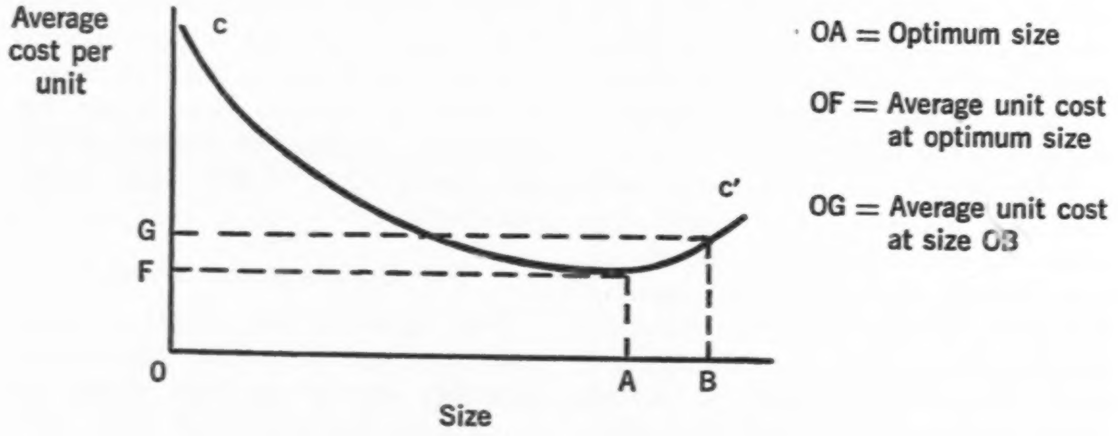
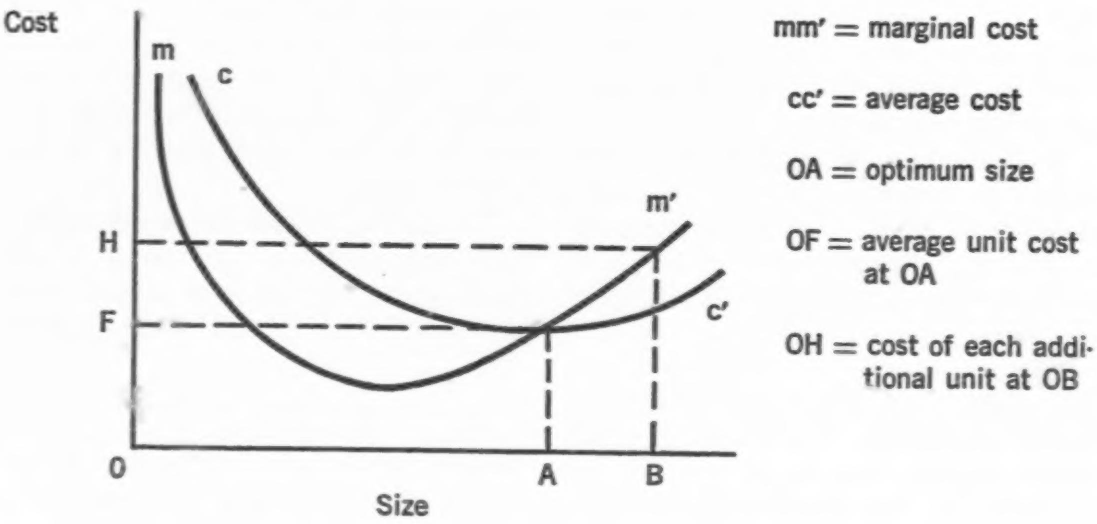


FIGURE VIII. MARGINAL COSTS IN RELATION TO AVERAGE COSTS



Though districts in this size range make up only 13 percent of the total number, they enroll 82 percent of public-school pupils. The second examined only those with fewer than 1,500.

Empirical studies of the size-cost relationship among small school districts have been numerous because of the concern for consolidation of these less efficient units, and also because their diseconomies are of such magnitude that they can be readily identified and measured.

However, the size-cost relationship becomes increasingly difficult to observe as districts become larger and more complex. Expenditure levels are then subject to such wide variations due to the varied tastes and resource endowments of the district's population that the influence of size is easily lost among a multitude of other cost determinants. The statistical design chosen for this inquiry sought to eliminate many of these complexities.

Descriptive data of two types were used. The first was school district size, measured in average daily attendance. The second was a unit cost residual for each district, which was obtained by adjusting current expenditures per pupil for the influence of certain characteristics of the adult population upon expenditure levels.

This adjustment was accomplished by using the results of James's extensive study of the determinants of educational expenditures.[2] Using multiple regression techniques, James identified eight social and economic characteristics of a district's population that correlate highly with its expenditures for public education.

A unit cost was obtained for each district by using the regression coefficients from James's study to compute a predicted expenditure level for each district. This predicted expenditure was then deducted from the actual expenditures, leaving a residual unit cost per pupil from which the effects of these population characteristics had been removed. This study then sought to determine the relationship of these cost residuals to district size.

The theoretical concepts underlying the study suggest a curvilinear size-cost relationship. The equation selected for the analysis was that of a simple parabola because either a "U"-shaped relationship or a linear one can be described by its coefficients.

The study was made with data for the 1958-59 school year in a sample of 577 districts situated in nine states with grades 1 through 12 enrollments ranging from 1,500 to 846,616 pupils. A separate analysis was made for each state. A study of districts enrolling fewer than 1,500 was made separately.

The Optimum Size District

The optimum size districts where unit costs are minimized varied considerably among the nine states. In every case, however, unit costs continued to decline with increasing district size well beyond 1,500 pupils.

The optimum size ranged from an enrollment of 20,000 pupils in one state to 160,000 in the largest. The median size district where unit costs were lowest was found to be about 50,000 pupils in average daily attendance. Table 1 reports the results of the algebraically computed optimum for each of the nine states, ordered on the basis of size.

The decline in cost per pupil as districts increased in size from 1,500 pupils up to the optimum ranged from $15 to $96 per pupil. The medium

Table 1.—The Optimum Size School District Computed Algebraically for the Nine-State Sample

State	Number of districts in the sample	Optimum size in ADA
1	2	3
Nebraska	17	20,000
New Jersey	108	30,000
New Mexico	23	40,000
California	52	50,000
Oregon	26	50,000
Massachusetts	83	79,029*
Wisconsin	46	86,567*
Washington	47	91,762*
New York	175	160,000
	577	
Median		50,000

* The unit cost residuals in each of these states continued to decline up to the size of the largest district, which is shown for Boston, Milwaukee, and Seattle, respectively.

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[2] James, H. Thomas, and others. *Wealth, Expenditure, and Decision-Making for Education.* Cooperative Research Project No. 1241. Stanford: Stanford University Press, 1963. p. 69-100.

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Table 2.—Economy of Scale, Expressed in Dollars per Pupil, for a District of Optimum Size When Compared with a District with 1,500 Pupils

State	Economy of scale	Optimum size in ADA
1	2	3
Nebraska	$15	20,000
New Jersey	19	30,000
California	21	50,000
Massachusetts	26	79,028
Washington	27	91,762
Oregon	28	50,000
New Mexico	33	40,000
Wisconsin	36	86,667
New York	96	160,000
Median	27	50,000

reduction in costs associated with size was $27 per pupil. The economies of scale for each state are shown in Table 2.

Larger Districts Have Higher Costs

The concept that a diseconomy of scale arises when size exceeds the optimum found substantial, though less consistent, support. As shown in Table 1, the largest school district in three of the nine states is of optimal size where the unit cost residuals are minimized. The findings in these three states suggest that unit costs would continue to decline with ever-increasing district size.

However, the optimum size in the six other states was found to be in districts of intermediate size, thus giving support to the theoretical construct that a diseconomy is associated with large scale. Table 3 reports the computed diseconomies for the largest district in each state when compared with a district of optimum size. The median among those states experiencing diseconomies is about $17 per pupil in average daily attendance. The states are ordered on the basis of the magnitude of their diseconomy.

Summary

The findings of this analysis support the concept of economy of scale among districts enrolling over 1,500 pupils for all nine states in the sample. The unit cost residuals decline with increasing district size up to an optimum whose median is about 50,000 pupils in average daily attendance.

The postulated diseconomy associated with very large size found substantial, though less consistent, support. In six of the nine states, unit costs rose when district size exceeded the optimum.

The uniform decline in unit costs up to an optimum size, followed by an upswing in costs in most states when this size is exceeded, gives empirical support for the concept of a curvilinear relationship between district size and unit costs in public schools. The relationship can be shown by plotting the median values from Tables 1, 2, and 3 graphically. The cost curve in Figure IX, below, illustrates this observed size-cost relationship.

Marginal cost—Reference was made earlier to marginal costs. For our purposes here, this refers to the cost for each additional pupil beyond a given size.

Focusing our attention only on those districts whose size exceeds the optimum, we can compute an approximation of marginal cost. If we assume that the unit cost in a district whose attendance is 75,000 averages about $17 per

Table 3.—Diseconomy of Scale, Expressed in Dollars per Pupil, for the Largest District in Each State When Compared with a District of Optimum Size

State	Diseconomy of scale	Largest district in the state
1	2	3
Massachusetts	$ 0	79,028
Washington	0	91,762
Wisconsin	0	86,667
Oregon	4	63,289
Nebraska	10	41,633
New Mexico	15	46,737
New Jersey	18	57,392
California	27	93,355
New York	114	846,616
Median	17	79,028

FIGURE IX. THE EXCESS COST ASSOCIATED WITH SCHOOL DISTRICT SIZE, BASED UPON THE MEDIAN VALUES SHOWN IN TABLES 1, 2, and 3

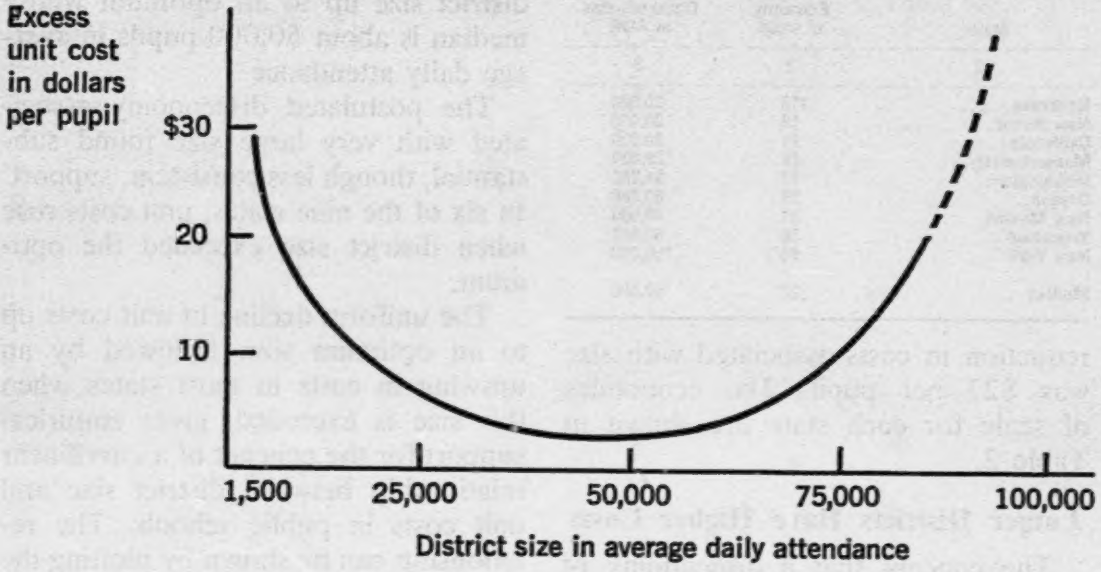
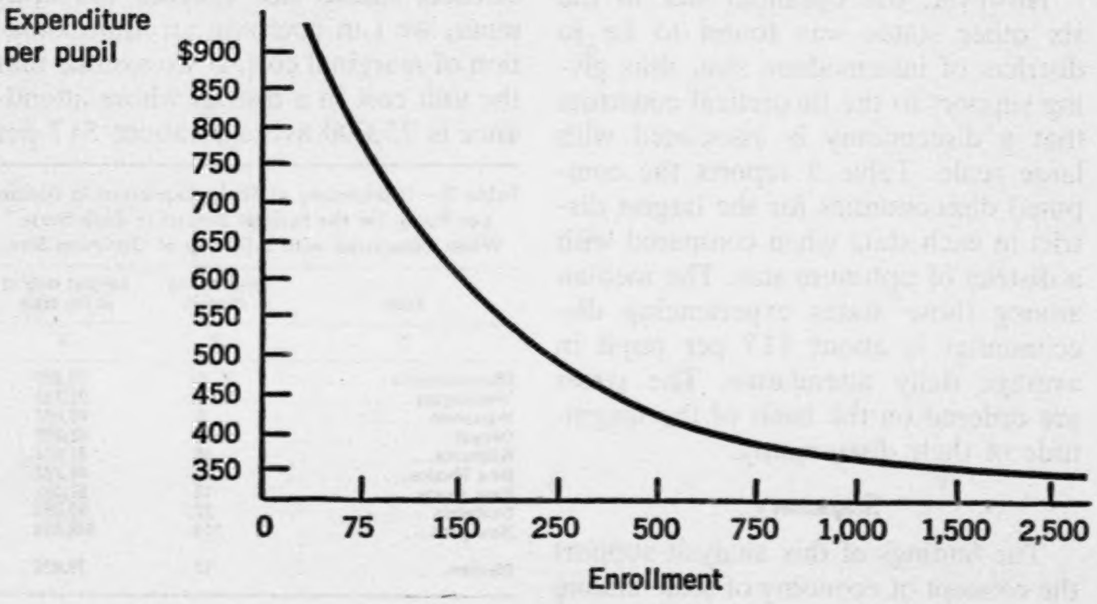


FIGURE X. PATTERN OF COSTS IN SMALL DISTRICTS IN WASHINGTON



pupil above that in a district with 50,000, we can arithmetically determine the marginal cost. Since the increase in cost for the extra 25,000 is $17 x 75,000 or $1,275,000, the added cost per pupil for the increase is $1,275,000 ÷ 25,000. In this example, the marginal cost for those above the optimum would be $51 per pupil.

Costs in small districts—Numerous studies have been reported for districts with fewer than 1,500 students. The indivisibility of certain inputs causes unit costs to rise substantially as the number of pupils decreases. A major operational item of cost that is in the indivisible category is the teaching and administrative staff itself. As enrollments decline, pupil-teacher ratios become less favorable, economically, and unit costs begin to rise. The distribution formula in most states includes a small-district correction factor which reflects, or shapes, expenditure patterns in these small schools.

An analysis completed recently for schools in Washington produced results similar to those in numerous other studies. In Washington, unit costs in high-school districts with 1,500 pupils average about $400 per pupil. Costs rise at a slowly accelerating rate as these districts become smaller. Those of 1,000 pupils average about $420; at 500 pupils, the average is about $480; at 250, costs rise to about $550; districts with 100 pupils have costs in excess of $700. The pattern of costs among small districts in Washington is illustrated in Figure II.

Conclusion—This analysis found a definite relationship between size and costs. The theoretical relationship between these variables was found to have substantial empirical support. In achieving the objective of equal educational opportunity, it seems essential that some compensatory factor for size be included. Most of our attention in the past has been directed only at the very smallest schools. It would seem that the opposite end of the size spectrum may also deserve recognition in our equalization formulas.

These findings also have implications for district organization and consolidation. Economies are possible and could well be encouraged considerably beyond the size of most of our districts today. However, it appears that there is a point beyond which further growth brings higher unit costs. We could conclude that consolidation to achieve greater financial efficiency seems to have an upper limit beyond which costs again begin to rise.

PART FIVE

The Property Tax

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Property Taxation: Toward a More Equitable, Productive Revenue Source

John Shannon

BEFORE SUGGESTING ways and means of making the property tax a more effective and equitable revenue instrument for local governments in general and the school districts in particular, it might be helpful to examine this tax in terms of the classical indictment which students of taxation have prepared against this particular device for spreading the cost of government among the citizens.

Twenty years ago the experts in public finance were virtually in unanimous agreement on three propositions: (a) From a revenue standpoint, the property tax was a sluggish performer, highly unresponsive to economic change. (b) The property tax did not lend itself to equitable and efficient administration. (c) This tax was highly regressive at the lowest income levels because there was no necessary relationship between property ownership and the ability to pay taxes.

Revenue Performance

The remarkable revenue performance of the property tax during the last 20 years has seriously undermined conventional wisdom with respect to the first proposition, namely, that the property tax is a sluggish revenue producer. In 1944, the property tax yield was approximately $4½ billion; it is now producing approximately $22 billion for local governments and school districts and still accounts for approximately 88 percent of all local governmental tax revenue. Because there is growing recognition of the fact that the rise in property values is roughly in line with the growth in national income, the current debate in public-finance circles now hinges largely on the extent to which increases in the property tax base approximate or possibly exceed the growth in national income.[1]

While about two-thirds of the increase in property tax collections can be attributed to economic developments

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[1] On the basis of property tax performance for the 1929-1949 period, Groves and Kahn concluded that for each 10-percent increase in national income, assessed valuations would rise by only 2.2 percent (*American Economic Review*, March 1952, p. 90). More recent measures of property tax "elasticity," based on post World War II data, indicate that for each 10-percent rise in income the potential base (market value of taxable property) has risen by at least 10 percent. See: Netzer, Dick. "Financial Needs and Resources over the Next Decade: State and Local Governments." *Public Finances, Needs Resources and Utilization*. New York: National Bureau of Economic Research, 1961. p. 36. See also: Harris, Robert, and Mushkin, Selma. "The Revenue Outlook in 1970: A Further Report on Project 70" (a paper delivered at the 1964 Conference on Revenue Estimating, sponsored by the National Association of Tax Administrators, Chicago, 1964).

—new construction and the rapid rise in land values—most of the remaining increase can be traced to political factors and their relationship to the decisions of local school boards, city councils, and county boards to raise property tax rates.

Political factors—When it comes to raising tax rates, local property tax policy-makers do not appear to be hedged in by as many political barriers as is the case for their counterparts at the state level.[2] There are several factors responsible for this situation.

First, because of the widespread diffusion of responsibility for the setting of local property tax rates, it is usually difficult for property owners to single out the person or persons directly responsible for the decision to increase the property tax. A property tax increase may stem from the decisions of one or more of the following local legislative bodies to increase the tax: the school board, county board, city council, or possibly a special district agency. It might also stem from the decision of the local assessor to raise property assessments. In striking contrast, the governor is usually held politically accountable for a decision to raise a state sales or income tax.

Second, the system of political sanctions appears to operate more rigorously at the state level. When a governor decides to advocate a sales or an income tax hike, he must calculate the effect which such a decision may have on his political ambitions, or the repercussions for his party at the next election. From a political standpoint the system of political sanctions operates with such efficiency at the state level that the governor's position has become the most hazardous within our political system and "incumbency which in virtually every other electoral office in the land is in odds of advantage for re-election is a liability in the office of Governor." [3] In contrast, locally elected representatives, particularly school-board members, appear to be less concerned about the effect which a tax-rate decision will have on their political futures.

Third, due largely to the absence of an alternative method for raising revenue, a decision to raise a local property tax does not precipitate a bitter partisan debate between the spokesmen for labor and the spokesmen for management. A proposal to increase the state sales tax can be expected to develop a hostile reaction from labor, while a proposal to increase the graduated income tax ordinarily elicits strong opposition from the business community.[4]

Fourth, in sharp contrast to the relatively slow and steady rise in property tax rates, increases in state sales and income taxes are usually abrupt and dramatic. For example, a decision to raise the state sales tax from 2 to 3 percent represents a 50-percent hike in the tax rate, and compounds the problem of generating sufficient consensus to authorize such a major departure from the status quo. As a result, both the state sales and income tax movements have alternated between periods of coma and convulsion. Usually, it is necessary for a fiscal crisis to develop at the state level before the requisite political support can be mustered in favor of expanded use of one or both of these two revenue instruments.

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[2] This general observation must be qualified in the case of those local governments and school districts that are pressed against state-imposed tax rate limits, particularly if these limitations are expressed as percentages of assessed valuation.

[3] Pitchell, Robert J. "The Role of State Tax Policy Commission's Proceedings." *Proceedings of the National Tax Association.* Harrisburg, Pa.: National Tax Association, 1963. p. 213.

[4] For a detailed analysis of public reaction to the perennial income-sales tax controversy see: Epstein, Leon D. *Votes and Taxes.* Madison: University of Wisconsin, Institute of Governmental Affairs, 1964. 76 p.

Fifth, property tax increases are more directly related to visible local public expenditure needs. Property owners at least can take grim satisfaction in the fact that their dollars are going to stay at home to meet their educational and other community needs.

In pointing out these peculiar political advantages which local property tax policy-makers enjoy as compared to their colleagues at the state level, I do not wish to imply that there is less public concern in the case of property taxation—far from it. I am merely underscoring the fact that the political decision to raise a property tax rate operates under a different set of political rules than is the case of a decision to increase a state sales or a state income tax and that this political difference is at least partially responsible for the remarkable revenue performance of the local property tax during the last 20 years.

It should also be pointed out that reliance on the local property tax has also created a political environment more receptive to proposals calling for state and federal aid to lessen the educational disparities that exist between the wealthy and the pauper school districts. According to a recent survey made by the Research Division of the National Education Association, most of the 56 high-expenditure school systems derive the lion's share of their revenue from local sources.[5] Perhaps the political significance rests in the fact that these wealthier local school districts possess the fiscal capacity, the legal authority, and the requisite local political support to underwrite a general level of education considerably higher than would have been the case if all of their revenues came from the state and from Washington. Thus, these high-expenditure districts—the pace setters of our educational system—create both an educational model for emulation and political demand for equalization.

Unequal Assessments

Now let us examine the second major indictment of the property tax, the allegation that this tax does not lend itself to equitable and efficient administration. If we measure administrative effectiveness in terms of compliance with the law, it must be conceded that the property tax stands out as a classical case of maladministration. The laws of most states clearly direct assessment officials to assess all taxable property at estimated market value. These constitutional and statutory full value mandates have been flagrantly violated by the perennial and pervasive practice of fractional valuation.

The extent of administrative deviation from the full-value laws has been clearly documented in a recent Bureau of the Census study which compared the selling prices and assessments of real estate sold in 1961. According to the Bureau's findings, the level of residential property assessments for the nation as a whole stood at about 32 percent of sales value in 1961, with state-wide assessment ratios ranging from 6 percent in South Carolina to 66 percent in Rhode Island.[6]

Of far more significance from the standpoint of taxpayer equity is the lack of assessment uniformity within local assessment jurisdictions. A mildly exacting evaluation of the Census Bureau's earlier 1957 findings discloses that the quality of local assessment administration ranged from superior to reasonably satisfactory in only one-fifth of the areas, while at the other extreme, it was extremely poor in one-sixth of the areas. The selected assessing areas included 395 with populations of 50,000 or more in 1950 and, therefore, clearly large enough to have competent professional assessment administration.[7]

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[5] National Education Association, Research Division. *Selected Statistics of Local School Systems, 1962-63*. Research Report 1964-R11. Washington, D. C.: the Association, August 1964. Table I, p. 47.

[6] U. S. Department of Commerce, Bureau of the Census. *Taxable Property Values*. 1962 Census of Governments, Vol. II. Washington, D. C.: Government Printing Office, 1963. Table 8, p. 40. For a commentary on this report, see: Jaffe, Jacob M. "The 1962 Census of Governments Report on Taxable Property Values," *National Tax Journal*, September 1963, p. 267-76.

While the findings of the Census Bureau study seem to indicate that the quality of local assessing as measured by the scatter above and below the average assessment level ranges from mediocre to almost unbelievably inferior over a wide portion of the nation, they are encouraging in their indication that some assessors (at least for one important class of property—residential) reach a very satisfactory degree of uniformity. The 86 major assessing areas distributed over 27 states that were shown to have from good to superior performance were well representative of the numerous types of communities included in the 395 major areas covered by the study. What is feasible for this representative group would seem to be within the reach of all.

As you may know, the Advisory Commission on Intergovernmental Relations has recently devoted a substantial portion of its appropriation for research and publications to a study of the property tax. It sponsored a study of property taxation in the 50 states conducted by one of the outstanding property tax scholars in the country with the help and support of many property tax experts throughout the country. The original purpose of the study was to identify the states which have made a significant reform effort and to identify their successes and failures, in the hope that out of this may emerge some lessons on how best to proceed with tax reform.

Some of you may already have seen the Commission's two-volume report on the property tax. It is now one of our best sellers.[8] The one thing that emerged from this study is that there is no mystery about the way to administer a property tax well. The experts are substantially all agreed on the prescription. Possibly 99 percent of the content of the Commission's two-volume report represents the consensus of practically the whole profession, including practicing tax administrators, private business practitioners, and academic people. There is no difference among them as to what needs to be done; there is a difference only with respect to the will to do it.

What does it take to make this property tax that you are stuck with, whether you like it or not, into the kind of tax that does as little mischief as possible? The essentials can be quickly listed.

First, it takes an assessor who is a professionally trained person with career status. The last thing in the world you need is an elected assessor.

Secondly, the assessor must be provided with a law he can administer. It is folly to impose upon him the obligation to assess property at 100 percent of current values. It cannot be done. The assessor should be free to assess at whatever level is practicable, in the light of that community's history, but whatever the assessment level, it must be applied uniformly to all property in the taxing jurisdiction. Assessors must be provided with laws they can live with, work with, and be honest about.

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[7] U. S. Department of Commerce, Bureau of the Census. *Taxable Property Values in the United States.* 1957 Census of Governments, Vol. V. Washington, D. C.: Government Printing Office, 1959. 145 p. Commentary: Bird, Frederick L. *The General Property Tax: Findings of the 1957 Census of Governments.* Chicago: Public Administration Service, 1960. 77 p.

[8] Advisory Commission on Intergovernmental Relations. *The Role of the States in Strengthening the Property Tax.* Washington, D. C.: Government Printing Office, June 1963. Vol. 1, 187 p.; Vol. 2, 182 p. The staff work for the report was conducted by Frederick L. Bird and Edna T. Bird.

It must be emphasized, however, that in recommending a flexible assessment policy, the Advisory Commission took cognizance of the fact that all too frequently local tax and debt limitations have been tied to assessed valuations. The Commission recommended, therefore, that if a state sees fit to retain tax rate and debt limits, these restrictions should clearly be spelled out in terms of the estimated market value, not the assessed value of taxable property and that these market value determinations should be made on the basis of assessment ratio studies made by the state tax department.

Thirdly, the assessor's area of operation, his assessment district, must be large enough to support a staff that has the technical competence in all the specialized properties involved in today's world, ranging from abandoned open spaces to electronic and atomic equipment.

Fourthly, the assessor must be backstopped with a state agency equally well staffed with persons who have the authority and competence to supervise him, verify his qualifications, look over his shoulders to see that he is doing an adequate job, and failing that, help him overcome his deficiencies.

Finally, the taxpayer must be given certain rights, too. He must be supplied with information on what is happening in property assessing in his jurisdiction because he cannot himself look at the market value of properties to decide whether he is being treated fairly. He needs information on the local practice in assessments, and, in addition, must be supplied with the means to get relief if he believes he is aggrieved. He must be given an economical and efficient and quick appeals procedure.

These are very simple rules; none of them is new. They have been incorporated in 29 Commission recommendations, which, in turn, have been incorporated in four pieces of suggested state legislation. These four interrelated bills have been endorsed by the Committee of State Officials on Suggested State Legislation of the Council of State Governments, and incorporated in their program of suggested state legislation for 1965.[9]

We are mindful that no one patent prescription fits the requirements of all the states. No one state now has all of these features in its property tax system. Many have some of them. This is one of the reasons for drafting the Commission's proposals in separate pieces of legislation to provide a starting place in those states where the legislature has been aroused into doing something about this problem.

This packet of suggested legislation is commended to your careful consideration. Nothing can be done in the whole area of public finance that is potentially as promising as a source of new revenue for financing the inevitable growth in school expenditures as property tax repair.

Because the generation of sufficient political support in favor of a major departure from the status quo stands out as a critical political problem, we can be under no illusions concerning the difficulty involved in setting the assessment house in order. That shrewd observer of the political process, Machiavelli, has succinctly stated the problem.

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[9] Advisory Commission on Intergovernmental Relations. *1965 State Legislative Program.* Washington, D. C.: the Commission, October 1964. For suggested legislative language for the appointment of local assessors on a merit basis, see p. 13, sec. 2, and p. 20, sec. 14; assessment or valuation standards, p. 27, sec. 2; tax and debt limits, p. 7, subsec. (6); state supervisory responsibilities, p. 12-19; taxpayer rights, p. 33-41.

> There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit from the old order, and only lukewarm defenders in all those who would profit from the new order, this lukewarmness arising partly . . . from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it.[10]

Full disclosure policy—In view of public resistance to change, property tax reformers might well be advised to select just one sector for a concentrated attack on unequal assessments. Perhaps the most promising reform policy is simply to advocate that property taxpayers be given a full and complete report on the fractional assessment practices of tax officials.

A full disclosure policy should have three components. First, there should be copper-riveted legislative insistence that the state tax department make annual local assessment ratio studies. Second, there should be legislative insistence that the state tax department publicize the results of its assessment ratio findings. Frankly, I hope the day will come when all property tax bills carry the following notation.

> Based on assessment ratio studies made by the state tax department, property in your district is being assessed generally at [—— percent] of current market value. If you believe that the assessed evaluation on your property is not in line with the prevailing assessment level, see the [county clerk's office] for information concerning the time and place for registering an assessment appeal.

Third, the legislature should provide that the assessment ratios established by the state tax department may be introduced by the taxpayer as evidence in appeals to the review agency on the issue of whether his assessment is inequitable.

There are two reasons for believing that a full disclosure policy might be able to trigger more far-reaching assessment reforms. First, while the great mass of taxpayers may not be particularly interested in beating the drums for the selection of assessment officials on the basis of demonstrated ability, they can be expected to be more receptive to a policy which would enable them to judge the fairness of their own assessments. Second, a full disclosure policy would dramatize assessment inequalities, and thereby generate more support from the general public and the tax officials for proposals calling for institutional and administrative reforms.

Excessive Tax Loads

The regressive character of the property tax stands out as the third element in the classical indictment of this revenue instrument. Those having a stake in strengthening the property tax must squarely face the fact that this tax does bear down heavily on the poor in general and on the elderly in particular. The steady increase in property tax loads, particularly in those states that place heavy reliance on the tax, is making a bad situation worse.

A recent study published by a committee of the California Legislature dramatically documents the regressivity of the property tax in that state.[11]

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[10] Niccolo Machiavelli, *The Prince*, ch. VI.

[11] Assembly Interim Committee on Revenue and Taxation. *Taxation of Property in California*. Sacramento: the Assembly, California Legislature, December 1964. Part III (p. 165-201) sets forth a comprehensive analysis of the various forms of tax concessions presently granted by the several states to the aged.

Table 1.—Estimated Average Local Property Tax per Aged Homestead and Estimated Average Property Tax—Household Income Ratio in California, by Household Income and by Age-of-Head Groups: 1960

Household income	Age-of-head groups					
	60-64		65-74		75 and over	
	Average tax per unit	Average tax-income ratio	Average tax per unit	Average tax-income ratio	Average tax per unit	Average tax-income ratio
1	2	3	4	5	6	7
Less than $1,000	$274	36.5%	$257	34.3%	$241	32.1%
$1,000-1,999	253	16.9	234	15.6	217	14.5
2,000-2,999	267	10.7	253	10.1	245	9.8
3,000-4,999	277	6.9	289	7.2	298	7.5
5,000 or over	367	4.1	388	4.3	387	4.4

NOTE: The average tax-income ratio is derived from dividing the average tax per unit by the midpoint of household income intervals. The midpoint of the "less than $1,000" is assumed to be $750, and the midpoint of the "$5,000 or over" is assumed to be $9,000.

Source:

Assembly Interim Committee on Revenue and Taxation. Taxation of Property in California. Sacramento: the Assembly, California Legislature. December 1964, Table V, p. 186. Collected from data especially tabulated for California by the U. S. Bureau of the Census.

For elderly persons in the lowest income class, the average 1960 property tax payment amounted to 36 percent of total household income, while elderly persons with incomes of $5,000 or more turned over less than 5 percent of their household income to the property tax collector (Table 1).

Just as those persons interested in strengthening the property tax must push for reforms designed to minimize unequal assessments, so also must they seek ways and means to minimize or cushion the impact of the residential tax for all persons in the lowest income brackets, not just for the low-income elderly. While it is extremely difficult to make a silk purse from a sow's ear, or transform a regressive property tax into a proportional levy, nevertheless a few states are making real progress.

Perhaps the most notable attempt to draw the regressive stinger from the property tax can be found in Wisconsin's 1964 tax credit plan that provides substantial property tax relief to low-income elderly persons, both homeowners and renters meeting specified income criteria. This tax relief program is financed from state funds and administered by the Income Tax Division of the Wisconsin State Tax Department, two features that might be of special interest to local officials and school administrators.

It should also be noted that there is a growing body of literature and state experience to facilitate an effort to adjust individual property tax loads to ability to pay. In this connection, the California property tax report cited in a footnote to this paper should prove helpful.

The critical need is to convince state legislative bodies that (a) household income is the most effective measure of property tax burden and (b) that the state should assume responsibility for financing a property tax relief program for those persons carrying excessive property tax loads.

As a rough rule of thumb, residential property tax loads that exceed 6 percent of household income might well be considered excessive. Probably most persons would agree that a family with a total income of $3,000 should not be required to pay *more* than $180 in property taxes, or that the tax on shelter for a family with a $5,000 income should not exceed $300. Perhaps we need a second notation on that property tax bill that would inform the taxpayer that he is entitled to a partial exemption if the tax on his residence exceeds [6%] of total household income.

While we may disagree on the exact percentage or formula to be employed in determining excessive property tax loads, I am sure we can all agree on the proposition that tying residential tax limits to household income could radically reduce the regressivity of this tax.

The risks in not assuming leadership in this effort are also apparent. As property tax loads increase, the demand for some kind of property tax relief will become more strident. This relief might come in the form of a blanket homestead exemption that would seriously erode the tax base or in the form of low tax rate ceilings that constrict the ability of local legislative bodies to finance their expenditure requirements.

Summary

The observation has been made that, according to the laws of aerodynamics, it is impossible for the bumblebee to fly. And, according to the dicta laid down by students of public finance, it is impossible for the property tax to function effectively. In short, they claim the tax is wrong in theory and unworkable in practice. Yet each year it continues to provide local governments and school districts with an *additional* $1.5 billion in tax revenue.

I feel confident that this highly productive revenue instrument can also be gradually transformed into a more equitable device for spreading the cost of local government and schools among the citizenry. My optimism is based on four findings:

1. Measured in terms of assessment uniformity, the performance of many local assessment offices can now be rated as superior. What is feasible for this representative group would seem to be within the reach of all.

2. There is widespread agreement on what has to be done to achieve an acceptable degree of assessment uniformity for all assessment districts.

3. There is a growing demand that property owners be fully informed about fractional assessment practices. Implementation of a full disclosure policy should expedite the enactment of far-reaching assessment reforms.

4. There appears to be growing public recognition of the fact that household income-property tax ratio stands out as the most effective device for detecting the presence of excessive residential tax loads. Gearing property tax relief programs to household income criteria can radically reduce the regressiveness of the property tax.

PART SIX

Decision-Making Process in School Finance

Responsibility for Decision-Making in School Finance

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Responsibility for Decision-Making in School Finance—Role of the Superintendent

Norman S. Green

To COMMENT ON the superintendent's role requires that some observations be made regarding the decision-making process in the schools and the superintendent's functions in relation to those of others with whom he interacts, and the tasks which uniquely affect fiscal conditions in the school system. This presentation will take as its frame of reference, a school system, grades K-12, with an enrollment of roughly 10,000 pupils. Clearly, this question will have somewhat different implications for the system with 1,000 pupils as it will also have for districts with 100,000 pupils.

Decision-making takes place at many levels and in varying degrees of gravity in today's schools. Consider, for example, the development of the budget and the allocation of resources. Staff members decide what tools they will need in order to do their jobs well. Teachers choose or help to choose materials, equipment, and even furniture. Custodians and other noncertificated staff express preferences among the items available to them when budget requests are being prepared. Principals and department supervisors then decide whether these preferences are appropriate and defensible. They decide whether some staff members have made unreasonable demands while other staff members have been short-sighted or too timid to request the minimum material assistance with which to do the job. Judgments must be applied to a conglomeration of individual decisions all along the way so that the investment of funds made by the community will produce the most efficient and effective allocation of material resources at the operating level.

The superintendent at this point must decide whether his administrators have exercised reasonable judgment in the preparation of their building or department recommendations. He must weigh such factors as meaningful balance among and within the various buildings and levels of school organization. Where possible, he should test budget requests against objective criteria, such as per-pupil expenditure standards developed by advisory agencies, as well as previous cost experience within the system. If requests from one building or one department appear excessive in relation to these factors, he must know why this has occurred and whether the reasons are valid in the light of system-wide budgetary considerations. Of course, budgetary problems make up only a small part of the total range of

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decision requirements imposed upon the superintendent.

We have seen here the conveyance of certain tasks requiring decisions at various levels, up through the superintendent. This process is not terminated at this point, however. The board of education or its finance committee will decide whether the superintendent's final recommendation is convincingly supported by evidence of need, feasibility, and available funds before it acts to approve the implementation of such recommendations. It might be said parenthetically that the board or any other agency for fiscal control over expenditures should not function below this level.

Such a chain of advice and consent, recommendation, and approval, prevails in most democratic decision-making organizations. The structure of decision-making which is implied here relies upon concepts of "line and staff" organization with the responsibility for making decisions clearly defined and in order of authority. Sound and proper control will dictate from time to time that the continuity of this chain be interrupted. A requisition may be rejected at any level. It may be arrested temporarily by referral for further study or review by the sender. Or, it may be expedited promptly to final action and implementation without restraint. The point here is that decisions are being made at various levels, any one of which might abort further action. The various levels of decision-making will usually determine or reflect the importance and complexity of decisions in public-school finance. While one teacher's request for an abacus poses no great decision burden, the cumulative requests for hundreds or thousands of such items escalate the burden to more significant proportions. Many persons should and will have a part in the advancement of requests for monetary expenditures.

Of concern at the moment, however, is the role of the superintendent of schools. As chief professional advisor to and chief executive officer of the board, his job is to adjudicate, reject, revise, or expedite recommendations which are submitted for his consideration. Following such analysis he decides whether to request action by the board. The board, of course, should make only policy decisions. Thus, in a well-administered school system, the teacher, the principal, and the superintendent will make professional judgments on all matters not in conflict with existing district policy. To clarify: In terms of school finance, the professional staff should decide what materials, equipment, and facilities are required to give life to the educational program adopted for the system. The board of education must then decide whether the district can support the resultant monetary recommendations. It may also decide what alternatives are open to the district if adequate funds are not available. However, if the educational program is to be reduced or otherwise modified to accommodate financial limitations, the professional staff, under the leadership of the superintendent, should provide recommendations to the board for the selection of alternatives.

This points up the importance of a precept of decision-making which should not be overlooked here. Generally speaking, decisions should be made at the level closest to the need. If we accept this premise, the implications are important at all levels. Just as the board must rely upon the judgment of the superintendent, so must the superintendent rely upon the judgment of the subordinate administrators. This does not mean that one abdicates his responsibility at any of these levels. It does mean that necessary changes in a decision should involve the person or persons from whom the recommendation came.

In budgeting, for example, when the superintendent determines that the expenditure requests for a building or department are excessive in the circumstances, he ought not arbitrarily to reduce or remove certain elements of the requisition, but rather refer the total request back with instructions for those closest to the need to select alternatives for reducing the total by "so many dollars" or "such a percent." This assumes, of course, that any capricious or irresponsible requests have already been eliminated from the requisition on its way up. No matter how omniscient the superintendent is or presumes to be, he cannot make effective judgments about the appropriateness or urgency of requests when he is removed by several levels from the original request. He must, then, rely upon those whose supervision is closer to the need.

Much more could be said about the decision-making process. The effects of major changes in funding for education have modified the constellation of public or referent groups with which the superintendent interacts. We see the erosion of many elements of local control as federal, state, and foundation funds "sweeten up" some programs which heretofore had not been considered directly essential to the education of our youth. Decisions being made by textbook publishers, the National Education Association, the National Science Foundation, the Regional Associations of Secondary Schools and Colleges, special interests in state departments of education, are all changing the environment in which the superintendent must render decisions. They all, I might add, contribute to the disintegration of the myth of purely local determination of school affairs. However, the subject of this presentation has its emphasis in the role of the superintendent as decision-maker in school finance. What, then, are some of the major decisions which the superintendent, either alone or with others, must make in the implementation of a fiscally sound public-school setting?

Without regard to a priority weighting, we might cite as a first major area of decision-making, that of determining courses of revenue. In this regard, the superintendent must present to his board reliable data predicting the effect of property tax revenue requirements upon the community in terms of its tax rate for school purposes. He must examine the extent to which he wishes to commit the school district to controls which may accompany receipt of aid for special state and federal programs. He may be called upon to decide whether monetary grants for experimentation and innovation are equal to the burdens that such activity places upon his system. He must study the comparative merits of charging book rental and other fees or going without this revenue.

He must establish, through study with the board, a policy position regarding the size of year-end balances in the several funds (or conversely, the size of year-end deficits in the several funds). In connection with this policy, he will be concerned with the schedule and sources of borrowing through anticipation warrants and the investing of temporarily idle funds. He must provide careful guidance to the board preparatory to their decisions to call for tax rate and bond issue referendums. Matters relating to the effect of approaching the tax rate ceiling as well as alternatives in the amount and length of bond issues will be vital to such board decisions.

A second vital area for decisions having a profound and continuing impact upon fiscal resources relates to the provision of adequate staffing and personnel policies. The translation of adopted educational concepts into the right kind of staff allocations, combined with effective personnel and salary policies, will impose the largest single financial burden on the district in any normal year. Negotiations with salary committees, analyses of survey and research findings, and the money available to the school district are essential matters of concern. In short, the superintendent must see to it that the district spends enough, but not too much, and he must know the difference.

The translation of these same educational concepts into the provision and maintenance of appropriate school facilities imposes a third area for important decisions. Questions of "pay-as-you-go" vs. bond issues for long- or short-term financing have definite implications for the future health of the district. The quality and quantity of specialized and "garden variety" learning spaces will have a direct effect upon initial cost of facilities as well as debt retirement to be scheduled into the future. Maintenance of these facilities will also bear perceptibly upon the district's financial resources.

The district insurance program, a significant matter more in terms of its complexity than its annual cost, will require careful appraisal and continuous attention. Extent of coverage, how much, if any, to co-insure or self-insure are all matters which have a serious effect upon the amount expended for insurance protection.

A fifth area of concern to the superintendent in his efforts to spend tax money wisely will involve working with other government and service organizations. The participation of the school district with other eleemosynary agencies in the community may well have a direct relationship to school expenditures and to the amount of service a school system gets for its money. Cooperation with the city and park district can and does, in some communities, represent large monetary savings to both parties (and, of course, to taxpayers) when measured in terms of quantity and variety of services to the people. Recreation, intramural, adult education, and outdoor education are but a few of the programs in which activities can be organized to minimize duplication and maximize efficiency.

And not the least of his many areas of decision-making is that time-consuming, elusive but critical matter of public relations. True, the entire range of school activities is embraced by the public relations program. Yet the decisions a superintendent makes with regard to how he will tell what to whom about the district's financial needs may make a profound difference as to how well these needs are met.

Indeed, the alpha and omega of opportunities for children in every school system are limited by the financial basis upon which the system rests. Walter Lippmann has said that the support of education is not a matter of ability to pay, but rather a matter of willingness to pay. Willingness to pay, however, is related in almost direct proportion to the public relations effort.

To a larger extent than we realize, financial decisions in school management today are often made months or years earlier, and have their foundation in prior decisions. This occurs when previous policy decisions dictate that significant time and effort be allocated to the development of a meaningful dialogue with the community.

A good public relations program will not rely upon crash campaigns leading to emergency referendums for bond issues and tax rate increases. It should rather utilize the "Chinese water treatment" type of incessant dissemination of pertinent information about all facets of the school program, particularly financial affairs.

To summarize then, the superintendent has the key role (to be sure others help) in the following decisions, all of which may be deemed critical in their impact upon the financial structure and continuing fiscal welfare of the district:

- Establishment of salary and personnel policies, including salary schedules, sick leave, sabbatical leave, and credit for prior experience
- Staffing—maintenance of appropriate pupil-teacher ratio, order of priority factors of training, experience, in-service growth; provision of staff and programs for special services
- Provisions of physical plant, involving bond issues, schedule of debt retirement, site acquisition, and cost of buildings
- Maintenance of plant—the extent to which obsolescence is tolerated vs. the amount committed to facilities upkeep
- Capital outlay for new furniture and equipment as well as replacement of obsolete equipment, conversion of boilers, and the like
- Fixed charges, involving assessments, insurance coverages, and the like
- Supplies and equipment.

In short, the decisions a superintendent makes in all of these areas of operation will substantially affect the fiscal health of his district. Serious errors of commission or omission can impair the financial integrity and subsequently the educational integrity of the school system which, after all, is the essence of our hopes for the future of our children, our communities, and our nation.

Responsibility for Decision-Making in School Finance—Role of the School-Board Member

Harold F. Breimyer

IT IS MY CONVICTION that nearly all citizens at large, and 2 in 3 lay school leaders, misjudge the place of the school-board member in school financing. Further, I doubt that as many as half the active board members understand the kind of fiscal life they lead. To be sure, all board members quickly form workaday rules of thumb, but I suspect that only a minority are able to see their role objectively.

My doubts as to public understanding are not based on the variations in kinds of fiscal relationships. Rather, I have in mind the many disguises that mask true power relationships, and, therefore, mislead all but the few *cognoscenti*. For some reason Americans are awed by legal language and impressed by organization charts. They overrate both. The neat geometry of a chart with boxes connected by lines like a telephone switchboard is appealing, but in reality it serves better for routing mail than as a guide to policy-making relationships. Whenever I visit a private corporation or a government agency to inquire about its operating policies, I disregard lists of officers with their long titles and inquire instead as to which individuals make the decisions that count.

We all know that school boards are created and granted their power in law, principally state law. We know that their fiscal powers differ. Some boards have the authority to set tax rates directly. Others can do so only if large new expenditures are first approved in referendum. Still others are subject to the budgetary control of a local government body. The differences are not trivial, and over the years I have changed my mind as to which arrangement I favor. I have concluded that the public purpose is served best when school boards are granted a large measure of fiscal independence. Let the responsibility be unambiguous.

But even so, the differences could readily overawe us. The school-board member with any ear for the subtleties of political life learns quickly that he does not really have the power the more liberal statutes seem to accord him. Nor, in those circumstances where other bodies hold the fiscal reins, is he inhibited as much, or is he as uninflu-

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ential as might be inferred. The particulars of a board's legal status are less meaningful than one might think.

For the school-board member uniquely serves as the crucial link between the community in the most comprehensive sense of that word, and the complicated organism of professional staff and activities known as a school system. He is the layman who must be the bridge between the lay public, that is, his neighbors and his constituents, and the professional enclave toward which he must cultivate both empathy and rapport. His job is in no sense easy. He dare not try to make it easy. Nor dare he try to find a hero's role for himself. Too many conflicting pressures must be reconciled for him ever to aspire to, or to win, wide popular acclaim. In my observation every board member who has tried to make himself appear heroic ended by looking foolish.

I am not trying to be dramatic. Let me explain a few of the sanctions a good board member finds himself to be under.

First, his sensitive relationships prevent a prudent board member from trying to outshine the superintendent in personnel matters or educational policy. The superintendent must be granted the limelight in advancing the cause of his professional staff and in advocating particular educational programs. (This brake on a board member does not extend to eulogizing the cause of education in general—no holds are barred in that evangelism.) It follows as a rule of practice that the superintendent will regularly propose a larger budget than the board is willing to adopt. Especially should the superintendent ask for higher salaries for his staff, including teachers, than his board members will grant him. The superintendent and his board should not be too far apart—some tacit understanding may in fact be desirable—but he ought always to be out a little way ahead of them.

The reason for this rule is that the superintendent's status in the eyes of his staff is more important than his public image. Moreover, voters expect superintendents of schools to be a bit visionary and even slightly cavalier on money matters.

The same voters extend no such tolerance to board members! On the contrary, for those trusting souls who venture into board service the voting public sets strict standards indeed. And it is the board, not the superintendent, whom the public holds primarily accountable for school costs.

Between the superintendent and the board there is a kind of reciprocity whereby the board helps the superintendent to look good on educational policy, and the superintendent aids the board in winning a reputation for levelheadedness in money matters.

No decisions the school board makes are more booby trapped than those of the level at which to fund their school system and thereby to tax their public. The easy way out might be to cater to economizers and keep expenditures low. But that incites indignation from the many pro-education parents who are the core of a good board's support. Moreover, such a policy violates the other half of a board's relationship, namely, that to the school system itself. It is really pretty cowardly.

A forward-looking school board, it seems to me, is not so timid. It must have a keen ear for the community's consensus, and it must be influenced by it, but it should be about a half step ahead of it. It will not be as far ahead as the community's most aggressive leaders want. In other words, a good school board responds, but it also leads, and it has a good sense of how far to lead. To decide just how much to conform, and how much to lead, is the kind of decision that separates pros from amateurs in political life.

Moreover, the school board must advocate. It should not be passive, but active, in asking the community to understand and to endorse its budgetary proposals. Again, this rule applies irrespective of whether the board's budget and tax rate are subject to review or referendum. The board, not the superintendent or anyone else, is the chief proponent on good financing.

It is a good idea if the board begins its advocating several years ahead. Confining a publicity campaign to the few weeks of a bond vote or an election is faulty timing, and could be fatal.

Often the school-board member's best stance in the finance problem is that of reasonably safe middle ground, of moderation. But not always. Sometimes he must be an Horatius. Such an improvement as consolidation of districts, for instance, seldom wins wide acclaim. Ironically, even though it is manifestly cost-saving, it often is opposed most strongly by those "conservative" citizens who clamor for economy. In such a situation, the courageous school-board member puts principles ahead of expediency, whatever the personal risks. As another personal annotation, I am reminded of the voter who refused to support my re-election because, in his words, "He didn't want to give us a new school in place of the old one, and besides, he spends too much."

We may as well acknowledge that school boards are not without volunteers to help in the budget-making process, usually by the negotiating route. Without objecting to formal relationships in the step-by-step making of a budget, I think I speak for nearly all boards in the conviction that no procedure and no group can relieve the school board of that ultimate responsibility which law imposes on it. Moreover, I would beg school groups to use some judgment as to how far to press school boards to meet their wishes. The Montgomery County, Maryland, experience of the last three years is graphic testimony to the chasm that yawns wide before the school board that lets itself get too far distant from the sentiment prevailing in the community it serves.

These brief remarks do not cover all aspects of the school-board member's fiscal role. What about the particulars of school programs, for example, which usually have a price tag? In my view, the superintendent is due the confidence that would give him much latitude in listing priorities. The board primarily decides how far down the list to go. Even in declaring this axiom, I add that it is an unwisely domineering superintendent who does not find a way to rank high at least a couple of the board's favorites, provided they are innocuous.

It would be an error, however, to say that the school board does its budgetary business just by telling the superintendent how many pet projects he may have. Here again, the facts of the case defy neat codification. On the one hand, the alert school board will persistently jar professional schoolmen out of any drift into complacency. It will bring constant pressure against such a comfortable old shoe as the checkerboard salary structure. It will deny any bid for quiet isolation of the school system from community-wide concerns (as poverty) or of individual schools from central jurisdiction. It will ask receptivity to new ideas, such as mechanical aids to teaching, which schoolmen all too often judge according to whether they might displace teachers. On all these, the board will prod the professionals.

But on the other hand, a considerate school board will also be a bulwark of defense of its school system before the public. It will help the superintendent to protect his staff from the more assertive members of the community, of whom there always are some. A few parents believe their own formal education endows them with high knowledgeability about the skills of the educator. Not a few citizens would strip from the educational profession its badge of defense and identification that is equivalent to the distinctive insignia of physicians, churchmen, and architects.

Few school boards can choose the source of their funds, other than the amount of pay-as-you-go versus borrowing for capital cost. On that choice the guide is whether a building program is one-time or continuing. If continuing, a heavy pay-as-you-go tax is the most responsible kind of boardship, although it often is not popular. Many school boards are in tight straits now because their predecessors lacked foresight or courage in levying pay-as-you-go taxes.

There are other decisions involving choices as to source of funds. One is whether and when to accept grant-in-aid funds. But that is a comparatively clear-cut kind of decision, and needs little comment. Grants-in-aid are a good way to stretch the local revenue dollar. They are being used more and more by both state and federal governments as a way to help local schools.

But if boards cannot often choose the source of their funds directly, they have substantial power to influence the choice indirectly for the future. By making studies of their own, by initiating public investigations and setting up advisory committees, by working with legislative officials, and by telling the financing story on every occasion—in all these ways school boards can help to shape the long-run trend in sources of school finances. My personal stand has long been that the personal property tax is outmoded as the big source of monies for schools. The nationwide trend is to move away from that tax and to rely more on other sources. I think the trend testifies to some degree to the effectiveness of school boards throughout the country in informing the public about school financing. Montgomery County's public conference on school financing held several years ago proved exceptionally well attended and well received.

Moreover, in remarking on how school boards can educate about finances, I end on the same note I began. This kind of education is not what was intended in the term, board of education. It is seldom found in the language of the law which assigns duties to school boards. It may be extra-legal and extra-job description, but it is an implicit part of the unique relationship school boards hold between lay citizens and professional educators. That relationship calls for school boards to be more than passive intermediaries; instead, they are aggressive pointers of the way and leaders along the path to get there. At best they are selfless, and, far from aspiring to the hero's toga, accept the comparative thanklessness that goes with a job well done. Most school boards, in my observation, see and accept that role.

Responsibility for Decision-Making in School Finance—Role of the Classroom Teacher

William E. Stiles, Jr.

THE RESPONSIBILITY for making final decisions on local school finance is given by law to the school board. That, at least, is what I have often heard. State legislatures mandate certain programs for the public schools, in some cases set minimum salaries for teachers, may set local tax limitations, and usually appropriate substantial sums of money that quite literally keep the public schools alive. On the local scene city councils finance boards of various types, and even the town meeting often reserves the right to review school budgets and appropriate the money needed to operate the schools. But if we confine this discussion to whatever decisions are left over after these other official bodies have had their way, I guess it is true that the school board has the right to make final decisions on school matters.

The point I am trying to make is that, far too often, persons who are otherwise practical begin any discussion of local school finance by assuming a pious expression and intoning some phrase about the legal and traditional rights of school boards, instead of accepting reality. Many persons actually have many roles in school financial matters. Refusal to face this fact will not change it. Acceptance of this fact will, however, make solutions to our problems much easier to come by.

Classroom teachers are deeply involved in school finance already and should be even more involved in the future. The largest item in the budget, teacher salary, is usually negotiated by the local professional association and the school board. The state education association is ordinarily accepted as the single most effective agency in any state for obtaining and protecting legislative appropriations for the schools. The National Education Association, 92 percent of whose members are classroom teachers, has been instrumental in the *passage of federal legislation* designed to aid the schools. These activities, however, show only a small part of the role of the classroom teacher in educational finance.

The teacher, as a citizen, should be interested in the schools. The classroom teacher, as a well-educated citizen, should be willing to accept leadership in all community affairs, including those which affect the schools. The

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classroom teacher, as a citizen who is also a professional educator, has a particular obligation to do everything he can to insure the right of every child to attend good schools. Since money is one of the enabling elements needed before good public education can be provided, the teacher should have a thorough understanding of the way in which public funds are provided and how they are spent.

The classroom teacher must be knowledgeable about tax rates and how they are set, property assessments and their relationship to actual cash value, budget making and the programs which are financed by the budget items. If he is to carry out his responsibility as a citizen as well as an educator, the classroom teacher has to know all about these things and to act upon that knowledge.

Unfortunately many classroom teachers do not know much about school finance. College courses on the subject are usually found only at the graduate level and are intended for those who are preparing for superintendent positions. Much of the work of the professional associations has been geared to educating teachers only in that area of school finance which is related to the negotiation of salaries. The NEA Committee on Educational Finance is trying to repair this gap in teacher education, but it will take time.

There is, too, a certain amount of apathy and even apprehension about what appears to be a very complicated and rather mysterious subject. Dissemination of information can clear away the mystery but probably not the apathy which afflicts a certain percentage of persons in any group.

The greatest single barrier to active interest in school finance by classroom teachers remains the attitude of laymen and school administrators who feel that teachers should stay out of this area and leave it to them. Thankfully, many administrators and school boards are now encouraging teacher participation in all phases of school work, but there is still a long way to go. How often have you been at an open budget hearing and heard someone criticize the classroom teachers for being in attendance? Why should anyone believe that the teacher lost his rights as a citizen when he began his career? Why should anyone believe that those who know the most about the schools, the professional educators of the community, should remain silent when the school budget is being discussed? An inherent fear of conflict of interest may be one reason for such an attitude, but objections are raised just as readily when teachers show an interest in plumbing maintenance as when any other subject comes up.

There could be a fear that individual teachers could "rock the boat" by disagreeing with the administrators and board members who have prepared the budget or presented the bond issue question to the public. If the classroom teacher is well versed in school finance, however, and better yet, if he has participated in the preparation of the budget or the presentation of a need to the public, why should there be a fear that what he has to say will upset the plans that have been laid?

The classroom teacher should be encouraged to take a deep interest in school finance and should be helped to understand and take a part in the development of budgets and the process of raising money to implement those budgets.

Although there has been widespread acceptance of the fact that the professional association will represent the classroom teacher by speaking out on questions that arise, I find that there is often a lack of understanding of why the association operates as it does. We must go back to the reasons for the organization of the profession for understanding. The professional association, whether it be of educators or any other professional group, has a twofold reason for existence. It must serve its members, and it must serve the clients of those members. Self-interest is not enough to hold the loyalty and support of the dedicated professional.

It follows, then, that the National Education Association and its state and local affiliates are going to take an interest in everything that has to do with education. As the Association represents classroom teachers and other educators, it will speak out on teacher salary schedules and the new methods of teaching mathematics; it will speak out on working conditions and on the selection of textbooks; it will speak out on the fair treatment of teachers and the need for the new tools of learning in the classroom. The association, following this pattern, will necessarily have to speak out on school finance. At the national and state levels, the associations have been operating this way for many years. At the local level, many associations have only recently begun to develop such a broad scope of activity.

As classroom teachers have become better educated, as their interests as individuals have broadened, and as they have been permitted to assume their responsibilities as citizens, they have demanded that the local association which reflects their collective interests become a more effective force for good in the community.

Classroom teachers do not want to weaken the power of the administration and the school board to make decisions about school finance. Classroom teachers do, however, want to have a part in the process which leads to the making of those decisions, and the agent which can do this for them is the local association.

Please note carefully the distinction I have made here between decision-making and the process which leads to the decision. Surely a wise administrator of a school board will want the advice and help of the teachers. The classroom teachers are closest to the problems which directly affect the education of the children in the school. To neglect taking advantage of such a pool of talented and trained consultants is folly. To try to make use of that talent by consulting a few specialists and ignoring all the rest of the teachers is also folly. The local association is the representative of the profession in the community, and in this capacity should be and will be influential in mapping out the path that education will take. Classroom teachers want their association to work in close co-operation with administrators and the school board in order that the needs of pupils and teachers will be recognized and met. Classroom teachers do not want to usurp the prerogatives of the administration or the school board.

School finance must be understood by the classroom teacher if his local association is to be responsible and effective in its endeavors. He must make it his business to learn the intricacies of school finance in order that his local association may represent his views fairly. The classroom teacher needs the support and help of others in education as he learns and acts upon what he learns.

Decision-Making Process in School Finance

Working with the Legislature on School Support

Working with the Legislature on School Support: Experience In North Carolina

A. C. Dawson, Jr.

EVEN IF IT IS NOT ALWAYS apparent, the organized profession definitely does have a role to play in the shaping of education legislation. Sometimes, however, we are like the piece of rope the old mountaineer was dangling in his hand as he basked in the sun beside a general store. A lowlander tourist walked over and struck up a conversation by asking the old man what he had in his hand.

"That's a weather gauge, Sonny," the hillbilly replied.

"A weather gauge? How can you possibly tell the weather with a piece of rope?" the tourist laughed.

"It's simple, Sonny," said the mountaineer. "When the rope swings back and forth, it's windy, and when it gets wet, it's raining."

Now, just like that piece of rope, we in education sometimes feel as if we are held from above and can only wiggle when the taxpaying hand says so; but just like that rope, we need to do some predicting and forecasting, along with some influencing. Because if we do not, we are going to be blown back and forth, and we are going to get wet.

Not All Agree

Needless to say, not everyone feels that the organized profession does have a strong role to play in shaping state and national legislation.

The fellow who does not want education improved because he is afraid his taxes may increase does not think organized educators have any business shaping legislation. He wants the policy decisions left to him and his next-door neighbor. They may not know a thing about education, but they understand taxes, he reasons.

Many politicians do not want educators involved in legislation, because life for them is a lot easier when people just accept what is thrown their way without making a fuss. They dread the pressure that can be brought to bear by educators leading an aroused citizenry. To the credit of our lawmakers, however, let me say that this attitude seems to be changing. More and more, they are turning to the profession for help in solving what are not only professional but also national problems.

What We Deserve

There is at least one other group—small perhaps—who feels that the organized profession has no real role to

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play in shaping state and national legislation. This group is made up of educators who would rather retire to the proverbial ivory tower and let someone else fight their battles while they adopt the pose of the dedicated intellectual. If this attitude should ever become predominant in the profession, we will probably deserve about what we get.

After all, is there really any question about our proper role? In democratic government, does not every individual and every organized group have not only a right but also a responsibility to participate in the lawmaking process? To fail to assume this proper role would, it seems to me, be a dereliction of duty.

As a group, we—not doctors, lawyers, farmers, or businessmen—possess the so-called expertness in the field of education. We have the insight into the problems of education; we are in charge of the accumulated store of information in the field; we know, I think, what needs to be done; and we have a pretty fair idea of how to do it.

Now, I am not saying that educators ought to be allowed to solve all the problems, make all the decisions, and create all the innovations in education, without bothering with laymen. We do not have all the answers, and even if we did, we would need, because of the unique nature of education, to involve the public deeply in all that we did. We want the people involved; we need their support and their advice.

Identify Needs

What, then, is our proper role as educators?

It seems to me that we have a duty and a responsibility to identify the needs of education from kindergarten through graduate school. I am not just talking about identifying the *money* needs of education, though these are pressing indeed. But we need also to point out where we are weak, where new courses are needed, and where old ones maybe are not needed anymore.

We need to find out why Johnny cannot read and what can be done to help the dropouts, these lost youngsters who are creating a national disaster.

Second, it is our role to validate these needs we have identified. We must do this by research and all other means at our disposal. We cannot afford to go to the people with a half-thought-out idea that just might work and then it just might not work.

Third, we have the responsibility not to retire to our ivory tower once the need has been identified and validated. We then have a role to inform the general public and develop public sentiment in favor of eliminating these needs. If we fail to do this, it does not take a prophet to see that those who are always opposed to the new and untried will carry the day. We cannot expect that others will be willing always to fight our battles for us.

To the Lawmakers

Fourth, we cannot stop with carrying our fight for an improvement to the people. We must go further and carry it to the lawmaking body. It has been our experience that more often than not we are successful if we can go to our general assembly and say: "Here is what we need. Here is why we need it, and you can see that this proposed change has public support."

We must be well prepared when our case reaches the lawmaking body. If we go to these men half prepared, unsure of just what we want, we may find ourselves in the same boat with the just-married young lady who sailed into a fishmonger's shop and tried to impress the old gentleman with her piscatorial knowledge. As he brought out fish after fish, she objected to each one, pretending to find something the matter with each.

Finally she said haughtily: "I just don't like the looks of any of these."

"Lady," said the fishmonger wearily, "if it's looks you're after, why don't you buy goldfish?"

What I'm saying is, let us be sure what kind of fish we want before we enter the shop and ask the lawmakers for a program.

One more word about this business of the organized profession's taking a program to the lawmaking authority. We were pleasantly surprised recently when, at a retirement conference we had organized, the man who is now speaker of our house of representatives spoke out on this very question.

Thermometer of Public Opinion

He told our conference how the general assembly operates and pointed out that the assembly is a *deliberative* rather than *creative* body. By this, he said he meant that the general assembly does not create legislation; instead it sits as a kind of court on legislation proposed to it by organized groups—the governor, of course qualifying, I assume, as one of these groups. In the words of the speaker, "The general assembly does not act as a leader of the state. It more or less acts as a thermometer of public opinion." When you realize the truth of this statement, it becomes clear why the organized profession must assume an active role in legislation if it is ever to achieve its aims.

A Program Developed

I want to tell you a little of how we go about developing a program to take to our general assembly. Admittedly, the program I am discussing revolves largely around financial benefits, but it goes further. In any given year, our program may call for salary increases for teachers, improvements in the retirement system, and more sick leave. But it will reflect also other areas which we feel—due to our research—need to be strengthened. Our present program, for instance, calls for more teachers for the gifted and for the mentally retarded. We can validate these needs, because the profession, and its experts, have shown that more teachers are needed if we are to do a better job in this area.

First Steps

We begin the preparation of our program within the "family"—among our own members. We ask teachers, principals, superintendents, and all other members what they themselves feel is the most pressing need for the next two years. We talk with acknowledged experts in the various subject-matter fields. We meet with our friends on the state board of education. When these consultations are finished, we have a program that we are sure is necessary, that we can justify, and one that has the backing of our members. But we are not yet ready to go to the general assembly with the program.

Instead, we take what we believe is a composite of the most pressing needs to an organization called the United Forces for Education. This group is composed of our State Grange, the North Carolina Federation of Women's Clubs, the North Carolina Congress of Parents and Teachers, the North Carolina Congress of Colored Parents and Teachers, the North Carolina Division of the American Association of University Women, the North Carolina Teachers Association, North Carolina School Boards Association, and our own organization, the North Carolina

Education Association. You can see what a broad base of citizen support is represented by these different agencies.

Sentiment for such an organization as the UFE goes back to 1940, when the need for a united front was felt. Formal organization of the UFE was completed in 1944, and since 1945 the UFE has presented to each general assembly a united program for the public schools. The North Carolina Education Association is proud to be a member of it, and it has without doubt been one of the major reasons for North Carolina's recent progress in education. In my opinion, much of the enormous influence and prestige of the UFE is due to its singleness of purpose—improvement of the public schools. To its credit, it has never been merely *against* something, but always FOR something.

Recent UFE Success

The professionals attend UFE meetings with the knowledge that its lay leaders may not see the educational needs exactly as we do. Along with other member organizations, we present what we believe the UFE program should contain. Eventually, a consensus is reached, and the program is taken back to each member organization for its approval. Can you imagine what it means to us to be able to say to a lawmaker that we are asking him to help with a program which has the backing of teachers, farmers, university women, women's clubs, and the like?

Let me tell you just a little of what this organization has meant to us over the past four or five years. Back in 1960, with a governor's race in the offing, North Carolina faced a crisis in public education. We had been making progress, but it had been so slow that we believed a big leap forward was absolutely essential, and we believed the people would support such a program. But the politicians had to be convinced, and we realized it.

With the United Forces for Education, we were able to develop our 1961 legislative program in time to make it public just about the time the candidates for the Democratic gubernatorial primary began announcing. No Republican gubernatorial primary was necessary.

As it turned out, we had four candidates for the Democratic nomination. One of these, Terry Sanford, was already talking about making education his number one objective, and he studied our program, then endorsed it fully, even though it called for an expenditure of an additional $100 million for public education in a state that, as you know, is not all that rich. Further, he said he would be willing to recommend new taxes if these were necessary to finance the program. All this, mind you, from a man still seeking the Democratic nomination, and seeking it against three strong conservative candidates.

Without taking a thing from this man—who just completed the most exciting four years in office educators in our state have ever known—I think it can be said without fear of contradiction that Terry Sanford could never have fully endorsed that program in 1960 had he not realized that it was a justifiable program, and had he not known that the UFE stamp of approval indicated it was a program with broad citizen support.

As most of you know, he did not forget us when he took office. He said flatly that the "education forces" elected him, and he lived up to every promise he made to these forces. Public education received $100 million in additional or enrichment funds. More important, the state was given a governor who gave us an administration dedicated to education at all levels and one willing to experiment to try to find answers to some of education's riddles.

Education and the Public Mind

In fact, Governor Sanford has said, and I think correctly, that the biggest long-term achievement of his administration will not be the increased expenditures, but will be the re-awakening of public interest and belief in education. This truth was illustrated in North Carolina in November when by an overwhelming margin the voters approved a $100 million bond issue for school construction. I might add that two of the three candidates for the 1964 gubernatorial nomination endorsed the present UFE program, and that our new governor, Dan K. Moore, says he will keep education first in his administration.

I cite these facts not to brag about the particular success we have had but to illustrate what we believe is our role in shaping legislation in our state. In this particular case, we identified the needs and we justified them with research, with statistics, and with actual case histories. We obtained citizen support for these needs, and we carried this support right in to the lawmaking body, through a governor and through senators and representatives, all of whom were contacted, and—if you will—courted, even before the general assembly convened.

I am not saying success will result every time this approach is used. It will not, and it has not for us. We get whipped sometimes, and we very, very seldom get all we request. But I shudder to think where public education would be in our state if the organized profession had adopted a role of staying out of the shaping of legislation.

One more word of caution about this role of shaping legislation. It cannot be done efficiently by a profession that is not united. When we take a UFE program to the general assembly, it represents the entire profession. We do not have the superintendents running in with a separate little program, or the principals, or the guidance directors, or the elementary-school teachers. We speak for the *entire* profession, and this fact, in my opinion, is one of the foundations of our strength.

I have attempted to say that I believe the profession has a duty and a responsibility to speak out, to attempt to bring about needed changes, and to demand that it be consulted as the primary expert in matters pertaining to education. This entails a responsibility. We in education must be prepared and willing to assume this position. If we ask for the responsibility, we cannot abdicate it later, when the going is tough and the probable decision not popular.

As one man has put it, it is not a job for the timid, or for educators who huddle in wishful little groups. We have to be ready to join the company of the brave. I make this statement even though I know that "fools (sometimes) rush in where angels fear to tread."

Working with the Legislature on School Support: Experience In Pennsylvania

A. Clair Moser

ANY PROFESSIONAL association, national, state, or local, which sets out to win favor with the legislature must start with a basic premise: It is a fact of political life that school support just does not happen. It is made to happen by those interested enough to promote it, financially and actively.

In Pennsylvania, educational leaders have carried on a continuing effort for school support. How effective that effort has been can perhaps best be demonstrated in dollars. In the fiscal year which began in 1939, 26 years ago, the Pennsylvania General Assembly appropriated about $35 million in subsidy to public schools. In the last fiscal year, the appropriation was $391 million; and in the current year it is expected to reach almost $430 million.

Some years ago one of the critics of the education lobby observed, "We must watch the teachers or they will take the dome off the Capitol." We consider that statement the highest tribute to our program, a program which has more than 100 years of history in it.

Pennsylvania State Education Association

In 1852, the Pennsylvania Teachers' Association, now the Pennsylvania State Education Association, was organized and held its first state convention in Harrisburg, December 28, 1852. Comments on the meeting published in the *School Journal,* January 1853, Volume 1, Number 13, express the hope for great achievements in improving the school program through the united effort of the teaching profession as follows:

> The meeting and proceedings of this body form a new era in the Educational history of Pennsylvania. By the organization of the State Teachers' Association the *mind* of the Common School System is at length excited into action, and will soon infuse life and vigor into its inert *matter*. By *mind* we mean the Teachers—by *matter,* the hitherto almost lifeless machinery of the School law. After this associated *mind* shall have made even one organized and united effort . . . we expect to see light and hope begin to beam from every part and energy invigorate the whole of our educational fabric. When the Teacher shall have taken his stand upon the solid ground of right and duty, and raised his head high among the professional classes, then and not till then will he be respected as

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he ought. . . . We rejoice to say that this "then" is nearly converted into "now," and that the glorious dawn is almost here.

Although several bills affecting education, including the first legislation to provide school support, were passed before 1920, it was not until that year, when the first full-time executive secretary of the Association was employed. Thereafter the Association became actively involved in developing and promoting proposals for state financial aid to improve schools. Members of the Association soon became aware that working with the legislature is a complex political process and that in defense of pressures, anything can happen.

In Defense of Pressures

The Edmond's Act of 1921 combined a minimum-salary schedule for school employees together with a new basis for distributing school support. The main departure in this legislation consisted of recognition of the fact that the more populous school districts of the state contained a relatively greater amount of taxable wealth than the districts with a smaller population and recognized this feature in the allocation of state subsidy per teacher. Then Pennsylvania lapsed into a dry spell that could be called "The Period of Educational Commission Reports." This was the "old game" so well known to all of us to counter uncomfortable pressures upon the legislature or the governor.

This action resulted in Act 397 of 1927, which provided for the appointment of a "Commission to study the Distribution of State Subsidies to School Districts." At the completion of the report, it was presented, with proposed legislation to implement its recommendations, to the governor for release to the general assembly. The governor held the report on his desk until the last day of the session of the general assembly, when it was released. Needless to say it died a natural death and was buried in the archives.

In the next legislative session, PSEA tried again to arouse interest in school problems, but again the only action was a study.

Act 533 of 1929 provided for the appointment of a "Commission to Study the Present Plan of Financing the Public Schools and Related Matters." The report of the Commission included recommendations with proposed legislation to implement the recommendations, and it was presented to the governor for release to the general assembly. Incidentally, this was the same governor who received the report of the 1927 Commission. However, he did release this report to the general assembly. The proposed legislation for school support was prepared and reported from committee for action. The proposal was geared to save money for the state by reducing state support to the more wealthy districts and giving it to the poorer districts. A fight between rural and urban members resulted in defeat of the bill. This was the end of the report and the legislative proposals.

Six years later in 1935, the political scene changed in Pennsylvania. Governor George H. Earle became the first Democrat to serve as governor in many years. His party was in the majority in the house of representatives when the Educational Costs Survey Commission came into existence. Created by the general assembly, the Commission drew its members from the general assembly and was directed to report to the general assembly.

The chairman of the Commission was the Honorable H. G. Andrews, a member of the house of representatives, a newspaperman and a vigorous supporter of education. The report is one which points up the problems in education rather than proposing solutions to the problems.

In his introductory remarks, Mr. Andrews states:

> This Commission will not endeavor to speak through the balanced phrases usually employed by the educational technician. We will speak as laymen, to laymen, but in no instance will we voice unsupported lay opinion.
>
> . . . Pennsylvania's pending school problems do not remain unsolved—do not hang fire—because there is a lack of information.
>
> The difficulty now, as in the past, lies in mobilizing public sentiment in support of constructive definite action, in conciliating and reconciling conflicting special interests, and integrating a progressive school program with the general fiscal and taxation policies of the various administrations as they come and go.

Action by the Pennsylvania State Education Association

The Pennsylvania State Education Association was aware of the urgent need for revision of the subsidy program. It also recognized that someone or some group must mobilize public sentiment in support of constructive action.

At the state convention in 1937 the House of Delegates authorized the president of the Association to appoint a committee to make a survey of school costs, taxation, ability to support education, sources of revenue, and equitable distribution of state subsidies and to submit the report to the 1938 House of Delegates. An appropriation of $10,000 was approved for the project.

The report of the Committee on Survey of School Costs was completed and submitted as directed. The Committee was directed to prepare legislative proposals in bill form, and to have them introduced in the General Assembly of 1939 for consideration, an assignment which it fulfilled. The most important of these was the subsidy bill which made the state responsible for the payment of a greater share of the cost of the educational program.

Selecting the sponsor or sponsors of a bill always has been one of the most important responsibilities of the lobbyist or legislative engineer. After a careful screening of the members of the House of Representatives, it was decided to ask the help of a member who was known to have a great interest in the complete educational program. A meeting was arranged with him to study the contents of the bill and the possibility of its enactment, and to request his sponsorship, a responsibility he accepted with pride.

After months of contacts with members of the House, particularly the members of the Education Committee, we concluded with the sponsor that the House was not inclined to pass the bill at the 1939 session. However, he agreed to urge the Education Committee to report the bill with the understanding that it would be recommitted on second reading. When the bill was called up, the sponsor and several of his colleagues made stirring speeches for it on the floor of the House. When the time came to recommit, the sponsor had to plead for agreement on the motion to keep his promise to the members of the Education Committee.

This action created extensive statewide news reports relative to the activities of the Association which were helpful to the cause of education. When the session ended, Dr. Harvey E. Gayman, executive secretary of the Association, took advantage of the free publicity and proceeded with his staff to develop effective organization for legislative action within the Association. Here is a glimpse of the organization.

The State-Wide Legislative Committee

Under the Constitution of the Association, a Committee on Legislation is elected, consisting of one member from each of the 10 regions and an additional member from each of the regions having a membership of more than 9,000.

At the present time the Committee is composed of 14 members, including the executive secretary of the Association. This Committee develops and promotes the legislative program for the Association at the state and local levels.

State-Wide Organization for Legislative Activities

State-wide organization for legislative action is necessary to promote effectively the legislative program of the PSEA. Each one of PSEA's four units of local organization—county chapter, district local branch, area local branch, and local association—has a local legislative committee. In counties with more than one local legislative committee, a co-ordinating committee is set up for contacts within the county. When the state senator represents more than one county, the co-ordinating committee includes in its membership the chairmen of all legislative committees within the senatorial area.

Local Legislative Committees

Membership—The president of each local unit appoints the local legislative committee, consisting of a chairman and four additional members. We urge that different levels of the profession be represented.

In large local branches (districts of the first and second class), the membership of the committee may be increased but should not exceed 11 members.

The president mails to PSEA Headquarters the names, addresses, and telephone numbers of the members of the Committee, all of whom should be personally acquainted with the members of the general assembly with whom they will make contacts. For this reason committees should be bipartisan, with each member a registered and active voter.

Whenever possible some of the personnel of the committee should be continued from year to year to give continuity and experience to the working group.

Activities and responsibilities—At their first meeting, the committee organizes for action and appoints or elects a subcommittee to contact members of the general assembly. Contacts by others than subcommittee members are not desirable unless directed by the subcommittee.

They also prepare a plan to keep the membership informed on legislative activities and to contact the membership in emergencies where quick action is necessary. Finally, they plan for participation in the activities of the co-ordinating committee, a process I will discuss in more detail later on.

PSEA legislative program—To set up their local program, we urge the members to read the December *Pennsylvania School Journal* which carries the annual report of the PSEA Legislative Committee, including policy and objectives. We also ask them to follow suggestions in the legislative letters from PSEA Headquarters during a legislative year. These letters are *confidential* and for their guidance.

Their duty is to inform their legislators of the content of PSEA bills and their effect on local school districts and to point up the legislative needs in their area.

Know your senator and representatives—The effective legislative committee member must know his senator and representative personally. He must be aware of their attitude and that of their party toward public education. He must be familiar with educational legislation they might have sponsored in the past or currently and know their chief legislative interests, be they education, insurance, agriculture, or whatever. He is also cautioned not to request that they sponsor a PSEA bill unless PSEA Headquarters asks that he do so.

Political leaders—Committee members are further charged to know the leaders of the major political parties and their personal attitudes toward education. They include county chairmen, state committeemen, etc. Their plan is to use the party leadership wherever possible to gain support for our legislative program.

Legislative procedure—Acquaintance with the organization of the general assembly, the biography of a bill, and the two-party system—party caucus and consent calendar—is necessary for the effective contact man.

Contacts with members of the general assembly—We suggest that personal contact subcommittees contact legislators at home. Homework is the secret of the success or failure of legislative proposals in Harrisburg. They should remember to say "thank you" even if the legislator does not go along with our point of view on a proposed bill. The education man will be back on other proposals.

Other suggestions—Try to arrange with the legislator the time, place, and method of contact most convenient to him; be sincere and courteous always, for the ability to disagree agreeably is the mark of a good legislative worker; maintain a reputation for sincerity and integrity, it can prove to be good politics as well as sound professionalism; report results of contacts to PSEA Headquarters or to the State Legislative Committee. We also tell them to send a member of the local committee to Harrisburg when they are requested to do so. The legislative worker should check in at PSEA Headquarters before and after contacting legislators.

Desirable practices—The program of the local legislative worker is affected by many considerations, like having local meetings at a fixed time, holding candidates' night to recognize legislators and give them an opportunity to state their views, cultivating the support of effective civic and service groups and encouraging membership and active participation of teachers in these groups, creating and maintaining a speaker's bureau with teachers and civic leaders as speakers, and maintaining liaison with the local school administration.

Teacher citizenship—The need to teach teachers is always to be met. The local committee must make certain that school employees in their districts are registered to vote and then *be sure they vote.* Voters should be advised on how to split their ballot if they so desire. The membership must be informed on the record of their legislators on educational bills and they should be urged to write "thank you" letters to legislators when they support PSEA legislation. The political facts of life demand that the legislative worker take the lead in supporting those who support him, and let those who support him know he is supporting them.

Co-ordinating committee—The coordinating committee functions to unify the activities of the local legislative committees within a county which has two or more local legislative committees and between counties when the state senator represents more than one county.

Membership and organization—The co-ordinating committee to which I referred earlier should consist of the chairman (or his designated representative) of each of the local legislative committees within the county or counties as the case may be. It should be called to an organizational meeting by the chairman of the legislative committee of the county chapter in which county the senator resides. This chairman will preside over the organizational meeting until a permanent chairman of the co-ordinating committee is elected. After organizing, the co-ordinating committee meets at the call of the chairman.

Activities and responsibilities—This committee co-ordinates all the activities of the local legislative committees within its area and maintains direct liaison with the contact subcommittees within the area. Its duties are to arrange and call informal joint meetings from time to time with members of the general assembly, and meetings of the entire PSEA membership at periodic intervals; brief bulletins or reports to the local legislative committees advising them of legislative progress and alerting them to action should be issued as needed by this committee.

Procedures and good practices—The county committee co-ordinates all procedures of local legislative committees on a county-wide level; develops a systematic method of reporting; maintains liaison with county and district superintendents, supervising principals, and other school administrators; stimulates and co-ordinates support of county-wide organized civic and service groups; and reports to PSEA Headquarters any pertinent and significant information.

The foregoing details represent the mechanics of the state-wide organization for legislative action.

Annual Sessions of the General Assembly

By constitutional amendment, Pennsylvania now has annual sessions of the legislature. During the even-numbered years the legislature considers appropriations and taxes and during the odd-numbered years legislation of all types may be considered.

Legislative Workshops

Prior to a session in an odd-numbered year, county-wide workshops on legislation are held by PSEA in each of the 67 counties of the state. All members of each local legislative committee are invited. The meetings begin early in the evening and conclude with a dinner at the expense of the state association.

Detailed instructions prepared by PSEA staff are distributed and discussed on every phase of the action program. Among these are instructions for contact committees; a questionnaire to candidates to be used in an interview with candidates for the house and senate to determine their views on legislation; procedures in handling candidates' questionnaires prior to the primary election; political activities in support of or opposition to candidates; plans to have all teachers register to vote, and vote; preparation of reports on the voting record of teachers; the legislative letter sent to all members of all local legislative committees; solutions to local legislative problems; organization for action at all levels; and emphasis on co-operating with the State Legislative Committee.

Throughout this discussion of the mechanics of an effective lobby I have tried to point out that it is far from a one- or two-man operation. Its success lies partly in the factual, reasonable, and practical leadership from the state Association. But it also requires the home-town support of educators who see the need for improved state aid for schools. The average legislator is concerned with what his constituents consider important and in the long run he must honor their demands if he wants to remain a legislator.

Thus, the local legislative worker is in many ways the key to the success of the state program. It is the organization and activities of such workers that make the state lobby effective.

In closing, I should like to point out that working with legislatures for school support actually means competing with other demanding organizations for financial resources. Highways, welfare programs, manufacturing interests, transportation firms, and dozens of others are trying to win those dollars that the schools need. That means that the education lobby is playing in a big league, and it cannot afford to use small puddle tactics in getting its message across.

Working with the Legislature on School Support: Experience in Indiana

Robert H. Wyatt

THE PROBLEM OF working with legislatures is basically a problem of analyzing the forces that play upon them and motivate them and then developing programs for working with those forces and shaping them into a unified program and approach to the solution of school-finance problems. The task of analyzing the forces is not a task of listing the forces. Every element of our total social, economic, and political life is necessarily included and is a force to be reckoned with. The analysis of the forces implies the study of their vested interest in legislation, their convictions, and their adopted programs of action.

The Indiana State Teachers Association over the years that this speaker has served as its executive secretary has experimented with numerous approaches. The conclusion reached as a result of these experiments is that there is no pattern or play that can be set down as the ideal or the most workable approach. Each new legislative experience is an entirely new game in itself and requires that the forces involved be reanalyzed in the light of their present objectives; the personnel of the present leadership; the experience that has flowed from recent legislative activities and former legislators; the government personnel, including leadership in the legislature, the governor, the lieutenant governor, and other state officials; and, of course, the special legislative problem that faces the schools at the moment.

Indiana School Study Commission

One of our greatest legislative efforts and successes was in the Legislature of 1947 in which we doubled the State Minimum Salary Schedule, secured the enactment of substantial increases in state funds, enacted a great improvement in the state retirement law, enacted a new law for reorganization of local school districts, and several other educational measures. The money involved in the finance program was very great, and those who opposed it in the legislature were doubly bitter upon being defeated in their efforts to stop the program. The program re-

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sulted in an average increase in teachers' salaries of $718 per teacher; and obviously, there were increases in taxes as well as other repercussions.

The membership and the officers of the Indiana State Teachers Association were tremendously grateful and pleased with this great advance; and in the fall of 1947, when planning for future legislation began in earnest, the ISTA developed a plan for a vigorous study of Indiana schools to be financed entirely by the teachers. The ISTA appropriated $25,000 from its own funds with additional appropriations later in the year. It set up a committee called the Indiana School Study Commission, composed of some 60 educational and lay leaders on approximately a fifty-fifty basis and including the governor; the lieutenant governor; House and Senate leaders; heads of such lobby organizations as the Indiana State Chamber of Commerce, the AFL-CIO, the Indiana Farm Bureau and the Indiana Congress of Parents and Teachers; and others. The ISTA, in addition, contributed the services of a director and assistant director and much clerical assistance.

The study was organized on the basis of seven major areas of education inquiry, namely:

1. School organization and administration
2. Financing the public-school program
3. Pupil transportation
4. School buildings and equipment
5. The elementary-school program
6. The secondary-school program
7. Employed school personnel

Committees consisting of some 300 persons, mostly educators, served the seven areas; and an out-of-state consultant with special proficiency in the particular area was engaged on a per-diem basis.

The study resulted in a 450-page report covering the seven areas and still stands as the most comprehensive study of Indiana schools ever made. The study resulted in the enactment of a great program in the 1949 Legislature, including a new state-school finance program involving important departures and improvements in the area of stimulating good school practices on the local level. It resulted in the passage of two local-school reorganization laws which stand as the basis for local-school reorganization and which, with later amendments and additional laws, have resulted in the reduction in the number of school corporations in Indiana from approximately 1,200 to 500. It resulted also in additional increases in the State Minimum Salary Law and the Retirement Law.

When it is considered that the enormous and bitter legislative experience of 1947—conducted to a considerable extent with high pressure methods, extensive teacher contacts, letters, telegrams and other tactics of a physical nature—resulted in great resentment among many of the more conservative elements in our state, it can be seen that the new, scholarly, high-level approach of the study commission was an almost miraculous means of refocusing public attention on public schools and their problems. The study, I might say, was followed by hundreds of meetings throughout the state, involving many thousands of local citizens in local committees to meet and study the interesting findings and recommendations of the study.

Obviously a major approach to the problem as was involved in our study commission of 1948 cannot be repeated frequently. In our own case, we used the more conventional approaches to the legislature for several succeeding bienniums with varying degrees of success.

Governor's Committee on School Aid Distribution

In 1958, 10 years later, we developed a somewhat new and different approach based on the fact that our great new advances of 10 years before had had time to accumulate experience; and the needs of our state had moved forward to the point where numerous revisions and improvements needed to be made and public opinion itself had developed in response to legislation that had been enacted previously.

In 1958, it was our opinion that the school study commission approach would not be such as to inspire enthusiasm, particularly among those who had contributed so much to the success of the previous study. In that year, 1958, we devised the approach of requesting the governor to issue a proclamation calling all of the 14 lobby groups who conduct legislative activities in connection with education to meet with him in his office to discuss the ways and means by which a review, reanalysis, and new approach to the solution of legislative problems might be accomplished.

The obvious take-off point in such an activity quite naturally is the desire on the part of all persons of good will and good faith to avoid the bitterness and confusion and bad legislation which result from fighting and conflict in legislatures when careful preplanning has not taken place.

For this new effort in 1958, we prepared in our office a series of documents:

1. A call by the governor to the lobby groups (I shall not say that we feared that lobby groups would not come if we called them ourselves). This call included the philosophy that was motivating the governor, namely, that a harmonious legislature in 1959 in the area of school legislation was highly desirable and that numerous problems and developments had arisen since the great changes that had taken place in the last 10 years.
2. A brief address by the governor to the lobby groups, including a suggested plan of procedure by the group in which the governor suggested that "the whole commission remain intact for making decisions, and appoint numerous so-called task forces composed of noncommittee members with high interest and ability in the various areas under study." The governor then suggested in his address that the committee organize itself on five problems:
   a. Objectives and characteristics of a good state-school finance program
   b. Scope and content of the basic state program of education in the fields of instruction, maintenance, and operation
   c. The problem of transportation
   d. The problem of school building construction
   e. Ability, effort, needs, and relative share of school costs to be borne by the state and local communities.

It should be said that this study resulted in very gratifying changes in the distribution formula which materially increased the emphasis on state funds to improve instruction.

The Political Approach

There are many persons active in legislative activities who believe that the political approach is the basic approach that must be relied upon for results. Many times in my experience I have been tempted to believe that it is. To put it accurately, it seems to me that no program for legislative activity can succeed without an intelligent and hard-hitting political approach.

I do not believe that this approach alone is sufficient, primarily because we are representing a high-level, institutional program, and the support of that program must come from the caliber of persons who are motivated by conviction as well as political influences. It is probably impossible, and also probably unnecessary, to try to find the line of demarcation between the motivations that spring from conviction on issue and the motivations that spring from political considerations. It certainly is not usually productive to uncover them even if one is certain that he can do so and even though he may enjoy revealing what really makes people tick.

The political approaches, of course, are involved in the primary and general elections, in the party conventions, in the party platforms, and in a great host of other meetings and party organization activities from the precinct level to the State House.

In our state, we have been developing over the past 10 years a program revolving about three major activities:

a. Our County Citizenship Committees
b. Our Regional Assemblies
c. Local classroom teacher activities.

The County Citizenship Committee program consists of the appointment from our office of County Citizenship chairmen that we believe are qualified by ability and interest to lead the County Citizenship program. The Committee itself consists of all superintendents, all principals, all local education association presidents, all committee members of ISTA, all delegates to the ISTA Representative Assembly, and any other teacher sufficiently interested to step forward and say that he wishes to be on the Committee. The Committee is not a policy-making committee. It is an action committee. It does not take action by voting, since it makes no policy decisions. Policies are made by the ISTA Representative Assembly and the ISTA Legislative Committee.

The functions of the County Citizenship Committee are:

1. To contact candidates in the primary
2. To study their records in the General Assembly
3. To call upon all candidates for the legislature, to discuss four to six issues determined upon in advance, and to secure their signatures as to what they will do on certain issues. In 1964, it was four issues. In 1964, a substantial majority of the general assembly indicated that they would support our State Minimum Salary Bill.

There are approximately 5,000 members on our County Citizenship Committees, and their work in this area is not only effective on Legislators but highly instructional and stimulating to the members of the Committees themselves. During the legislative session, the County Citizenship chairman and his workers constitute the structure through which local sentiment is conveyed to legislators through all the channels of communication, including personal calls in the legislative chambers.

Our Regional Assemblies consist of approximately 25 regional meetings held twice a year, involving the persons on our County Citizenship Committees and all other teachers interested enough to come. In them, we discuss the current issues and make an effort to inform these persons about the position of the Indiana State Teachers Association on the issues and concerning the basic elements and facts upon which our position rests. The regional Assemblies following a legislature, of course, are devoted to an analysis of the new laws and their impact upon schools.

Our local classroom teachers associations carry on activities that are quite similar to those carried on in all states and are co-operative with the County Citizenship Committee programs.

Underlying all of the political aspects of the program are the year-round activities of the executive secretary and staff in connection with political conventions, picnics, and other activities. There is no way of evaluating such activities; and there is no limit to the time, energy, and intelligence that are called upon to keep up the contacts, maintain the friendships, and become involved in the writing of platforms, nomination of candidates, and the making of many decisions.

In the 1963 and 1965 Legislatures, the heart of our lobby approach was property tax relief and improvement of instruction. The first of these issues was the practical, cold-blooded approach that went far in producing results. The second of these approaches, the improvement of instruction, was at the heart of our effort and contributed much in inducing high-level legislators to do what they believed right and enhance the image of their particular political party as a party that believes in progress in education.

These two approaches in 1963 and 1965 increased state funds from $244 million to $447 million, increased the state minimum salary by $900 for beginning teachers with bachelor's degrees to $3,000 for the maximum for those with master's degrees, improved the retirement fund, enacted a bill of rights for political activity for teachers, transferred rule-making authority on educational expenditures from the State Board of Accounts to the State Board of Education, enacted immunity from subpoena for guidance directors and counselors, extended tenure to all teachers, increased sick leave pay, produced two days of personal leave pay for teachers, and improved the formula for distribution of state funds by increasing the spread in state funds between the most highly qualified teacher over the lowest qualified teacher to $2,750 per teacher.

Working with legislators is not only a science but an art. There is no formula that can be relied upon except unrelenting persistence and capitalizing upon every opportunity and every break, and causing the finer people in the political community to take pleasure in the belief that they are contributing to the advancement of the education of children.

In the language of football, there is a great deal of just plain broken-field running in the matter of dealing with legislators. That broken-field running, however, must be geared to a philosophy about the improvement of education in any and every small way and must not rely upon the belief that some day some single, great event will solve our problem. That single, great event, when it does come, will be the result of thousands of little events, small contacts, and the good will and good faith of many thousands of little people who really do believe in the cause. It must be remembered at all times that these people in politics must be motivated by many political considerations if they are to remain alive rather than to be merely dead heroes. The exasperations that flow from this fact must not be permitted to cause one to dub this one or that one as a political enemy. Your political opponent of today may be your champion tomorrow for the strangest of reasons.

One last comment on working with legislatures, which in reality means working with politicians, is that we in education must strive unceasingly to elevate general philosophical bases upon which party platforms and party campaigns are constructed. Here in 1965 we have one of the widest divergences in political parties that we have seen in many years from the standpoint of support of liberal measures, including education. The Democratic Party in the Congressional struggle of last week revealed overwhelming support of such measures, while the Republican Party revealed a truly depressing image of opposition.

This great divergence cannot remain because the American people are on the march toward progress and development of the individual in a more dynamic sense and in a more dynamic way than at any time in many generations. A break is imminent in one or both of the parties which must be studied with the greatest of care and intelligence by people in education. We must find in both parties elements of strength and dedication to progress and help in our own way to bring about in both parties a crystallization of philosophy and leadership that will be most likely to result in real change in the Republican Party and strength for the champions of education that have emerged and are now dominant in the Democratic Party.

I have not discussed in this paper the many details involved in the writing of legislation, in the contacting of the governor and the leadership of the two parties; in securing authorship of bills; in canvassing the two houses; in conducting scores of legislative breakfasts, luncheons, and dinners during the general assembly; and countless other devices that must be employed in an intelligent program. These devices again must be the result of long-range planning and short-range capitalization on hour-to-hour developments.

I have not discussed the relationship in the legislature of our lobby with other lobbies, but will summarize only by saying first that all lobbies at times co-operate with the education lobby, some of them almost universally and some almost nil. Each issue has elements that appeal to some other lobby, such as property tax relief, the freeing of local boards for greater local freedom, implications for local-school reorganization, and the like.

The outside lobby which is most faithful to forward-looking programs, of course, is the Congress of Parents and Teachers. The structure of the PTA, containing as it does people from every walk of life, is not such as to make it a hard-hitting lobby; but its contributions in educating the public in a widespread, comprehensive way and of bringing to bear in committee testimony the sentiments of hundreds of thousands of citizens are of great value to the education program.

Basically, though, and finally, rightly or wrongly, the education program in state legislatures, as I have found it, must rely primarily upon the school lobby. Here is a group of citizens and voters with a single, fundamental objective distracted only in minor ways by personal or occupational vested interests. Here also is a group of intelligent persons who are expected by the politicians to have strong convictions about educational matters. It is the sheer strength of that conviction which can be brought into sharp focus and powerful impact upon political consciousness because politicians know that those who really want things and who are angered by defeats are far more virulent voters than those who stand calmly on the sidelines and express mild approval or disapproval of what should be done.

In other words, politicians know that the vested interest group is alive; it is this simple fact that must be held clearly in mind when determining what lobby force must be relied upon in the clinches to come through and produce the results.

Working with legislators is both an art and a science. There is no organized course of instruction about this important function, at least not one which is sufficiently practical to comprehend the down-to-earth requirements of the job. It is an activity that requires highly skilled specialists who are sensitive politically and psychologically. Our professional organizations will be far better off when the entire membership comes to the point of appraising this service for what it is and adjusting the structure and program of the organization so that professional lobbyists of the organization are given sufficient freedom to function with the dynamic grass-roots support that is necessary for success in this field.

PART SEVEN

Tools for Decision-Making in School Finance

The Theory and Application of Program Budgeting to Education

Jesse Burkhead

THAT WHICH MAKES the study of budgeting interesting is its complexity. In any organization, public or private, the budget is an expression of purpose and program and hence a reflection of past performance, including both successes and failures. The budget is also a reflection of hope for that optimistic future when success will predominate and failure will be minimal.

In business firms the budget is most often conceived as a work plan for the fiscal year immediately ahead and as an instrumentality for enforcing discipline on the components of an organization. In public agencies the budget may also be a disciplinary agent to control the use of resources devoted to a particular purpose. But a public budget is also an expression of a philosophy, or a set of value judgments about the "proper" amount of resources that is to be channeled from the private sector for the pursuit of public objectives. A public budget is thus an economic document, a reflection of resource allocation decisions, with program objectives structured by the amount of resources available.[1]

Budget procedure is likewise complex. It must be related to existing and prospective patterns of organizational responsibility and to the hierarchy of policy authority. Budget procedure must both reflect and serve internal organizational purposes. At one stage it is an expression of proposed executive policy which may be modified by the legislative body. At this stage budget proposals are often intended to build a consensus of community support for the programs of an agency. Here the budget, in a broad sense, is a public relations document.

After adoption the budget becomes a work plan for the organization, a plan which must often be modified to meet changing circumstances. At this point the budget is a device for assuring accountability, to prevent findings and stealings.

Budgeting as an art must be viewed in its political context, as a process of leadership and consent-building, characterized by negotiation, bargaining,

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[1] Smithies, Arthur. *A Conceptual Framework for the Program Budget*. Santa Monica, Calif: RAND Corporation, 1964.

and compromise.[2] Budgeting as a science finds its roots in economics where decisions must be viewed as matters of choice among alternative programs and choices about the levels of programs, in a context of balancing needs against resources. As an expertise function, budget-making in any agency, public or private, must be linked with programing, with accounting and reporting, with personnel management, and with systems analysis.

In view of the complexity of the budget and the budget process, its interrelationships with other facets of policy-making, its mixture of art and science and the large number of purposes that are expected to be satisfied, it is not surprising that major innovations come slowly in this area and that the "lessons of experience" from such innovations are difficult to evaluate. Such is the case with performance or program budgeting as it has evolved in the last 15 years in governments in the United States.

The Background

Recent experimentation in program and performance budgeting is usually dated from the reports of the First Hoover Commission in 1949.[3] Precedents to this approach to budget measurement, however, can be found in professional writing and in the practices of some federal agencies and American cities dating back almost to the beginning of the century.

In the years since 1949 a great many budgetary reforms at all levels of government have been undertaken in the name of program and performance. A large number of federal agencies have adopted a so-called cost-type budget, most notably the Department of Defense.[4] One important federal agency, the Department of Agriculture, which has long had a program structure, has strengthened and refined it.[5] Some state governments, such as Maryland and California, have introduced new program structures. In New York, experimentation with performance budgeting for institutional care was introduced, worked reasonably well, and then was abandoned.[6] A great many cities have introduced performance systems; the Los Angeles experience, for example, has received a good deal of attention.[7] There is no accurate compilation available, but one has the impression that literally hundreds of cities, and perhaps a dozen states, have introduced major and significant budgetary reforms in the past 15 years, all of which have been justified under the name of program and performance. Nor have governments in other countries been isolated from this trend.[8]

There is what might be called an "original philosophy" about program and performance budgeting which embraces the following points. First, a government budget should describe accomplishment and not just objects of expenditure or "things bought." Second, work programs should be meaningful to all centers of decision authority, starting with the program administrator and continuing to the agency head, department head, central budget office, the chief executive, and the legislature. Third, program and performance budgeting requires substantial decentralization within an organization both for the preparation of the budget and for its execution. It follows that program administrators must have authority during budget execution to transfer funds within the program in order to attain established objectives.

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[2] Wildavsky, Aaron B. *The Politics of the Budgetary Process.* Boston: Little, Brown and Co., 1964. 216 p.

[3] Commission on Organization of the Executive Branch of the Government. *Fiscal, Budgeting, and Accounting Activities.* Washington, D.C.: Government Printing Office, 1949.

[4] The analytical framework for this approach is set forth in: Hitch, Charles J., and McKean, Roland N. *The Economics of Defense in the Nuclear Age.* Cambridge, Mass.: Harvard University Press, 1960. p. 105-239.

[5] Roberts, Ralph S. "USDA's Pioneering Performance Budget." *Public Administration Review* 20: 74-78; Spring 1960.

[6] Henry, Marion L., and Proctor, Willis. "New York State's Performance Budget Experiment." *Public Administration Review* 20: 69-74; Spring 1960.

[7] Eghtedahri, Ali, and Sherwood, Frank. "Performance Budgeting in Los Angeles." *Public Administration Review* 20: 63-69; Spring 1960.

[8] The Philippine government introduced a comprehensive system of performance budgeting in the mid-1950's. The Department of Economic and Social Affairs of the United Nations has sponsored a series of budget workshops on this and related topics. These have recorded a number of significant innovations in many countries. See, for example: United Nations. *Report of the Inter-Regional Workshop on Problems of Budget Classification and Management in Developing Countries.* New York: United Nations, 1964.

One of the interesting things about experiences of the past 15 years is that point one of the "original philosophy" continues to prevail, but points two and three have not survived so well. Performance budgeting does not serve all policy levels in all governments. In some cases it has turned out to be useful for program administrators but not for the central budget office, as in New York State. In other cases, as in the U.S. Department of Defense, program budgeting has been most useful at the Secretary's level as a technique for centralized decisions. This has tended to turn budget-making in the separate branches and bureaus of the armed services into a routine computational exercise to support prior determination of programs. In most cases program and performance structures have been ignored by legislatures, as is the case with the U.S. Congress. What has happened is that we have had varieties of experience with this budgetary innovation. One thing would seem to be reasonably clear—program and performance budgeting have not been accompanied by any substantial degree of decentralization or devolution of administrative authority in most governments that have introduced it. The reason for this is probably not hard to find.

In this age, organizational structures are the servants of technology. New electronic data systems and accounting systems yield a vast quantity of information. Very often this information is of such kind and variety as can be utilized most successfully at central levels of administration. A central budget office thus finds itself in possession of more and better information about programs. With a given pattern of organizational responsibilities a central budget office is very likely to utilize this information in the interest of what it deems to be increased central efficiency and control. The sensitivity to operating and program concerns that accompanies decentralization of administrative authority is thus lost from view.[9]

The appropriate degree of centralization in any organization is a very complex matter about which generalizations are difficult.[10] Such diverse organizations as the General Motors Corporation, the Department of Defense, and the New York City Board of Education move in and out and up and down with respect to an appropriate division between central authority and decentralized authority. Perhaps the one point that should be stressed is that the thrust of technology is all in one direction. Modern data processing systems make for centralized decisions.

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[9] There are other pressures at work as well, all of which tend toward additional centralization. Some of these developments at the state budget level are well documented in: Schick, Allen. "Control Patterns in State Budget Execution." *Public Administration Review* 24: 97-106; June 1964.

[10] Gross, Bertram M. *The Managing of Organizations.* Vol. I. New York: Free Press of Glencoe, 1964. p. 370-87.

School administration has been relatively untouched by these reforms in budgetary analysis and classification. An examination of the literature and practice of school budgeting and school accounting suggests that in this area, as in many others, school government continues to operate in a world apart from other government. The U.S. Office of Education in its *Financial Accounting for Local and State School Systems* does not discuss program or performance budgeting, and the "program areas" that are categorized are so broad as to defy definition in performance terms.[11] In New York State a new uniform system of accounts for school districts went into effect in 1964. This system makes no provision for program or performance classifications, although there is sufficient information to make this possible.[12]

Most of the textbooks on school finance discuss the crucial link between planning and budgeting, but do not take the next significant step which requires a linkage of the educational plan with budget classification.[13] One well-known text on school budgeting is positively hostile to a program and performance approach on the strange argument that the budget for snow removal and garbage disposal cannot be compared with the budget for the education of children.[14] On the other hand, support for this conceptual approach to school budgeting may be found in the writings of Charles Benson and of Alan Thomas.[15]

It is a little difficult to see why school administrators have remained aloof from these recent and important developments in budgeting. Perhaps it is simply because of the traditional separation of schools from other governments, with the development of traditions of independent administration. Perhaps it is because school budgeting is typically highly centralized and an innovation that appears to, even though it may not in fact, require decentralization is not regarded with favor. Perhaps it is because, as is so often charged, innovational rates are low in school administration. But whatever the reasons the time has surely come for some much-needed experimentation with program and performance budgeting in the public schools.

A number of recent developments suggest that the cause is an urgent one. On the theoretical side the recent writings on the economics of education, pioneered by Professor Theodore W. Schultz, suggest that there are possibilities for rational decisions about resource allocation for investment in human capital.[16] Although much of this analysis is not yet operational in the sense that it serves up firm guide lines for choices among educational programs, this approach certainly holds the promise of providing ultimate operational content. In fact an "economics of education" approach is already extensively employed in educational planning for developing countries.

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[11] There are five such areas set forth: Elementary day schools, secondary day schools, summer schools, community colleges and adult education. See: Reason, Paul R., and White, Alpheus L. *Financial Accounting for Local and State School Systems.* State Educational Research and Reports Series: Handbook II. U. S. Department of Health, Education, and Welfare, Office of Education, Bulletin 1957, No. 4. Washington, D. C.: Government Printing Office, 1957. 235 p.

[12] New York State Department of Audit and Control, Uniform System of Accounts for School Districts, January 1964. The general philosophy of school budgeting in New York State continues to find expression in State Education Department, *Budget,* School Business Management Handbook No. 3, 1956.

[13] See, for example, Mort, Paul R.; Reusser, Walter C.; and Polley, John W. *Public School Finance.* New York: McGraw-Hill Book Co., 1960. p. 345-69.

[14] Ovsiew, Leon, and Castetter, William B. *Budgeting for Better Schools.* Englewood Cliffs, N. J.: Prentice-Hall, 1960. p. 290.

[15] Benson, Charles S. *The Economics of Public Education.* Boston: Houghton Mifflin Co., 1961. p. 497-500.

Thomas, J. Alan. "Educational Decision-Making and the School Budget." *Administrator's Notebook* 12: 1-4; December 1963.

[16] The writings in this area are extensive. A good introduction to the subject is provided by: Schultz, Theodore W. *The Economic Value of Education.* New York: Columbia University Press, 1963. 92 p.

Becker, Gary S. *Human Capital.* New York: Columbia University Press, 1964. 187 p.

A second consideration is that resource availability for public education, particularly in large cities, is, if possible, in a more critical state than it has ever been. In the past few years we have become painfully aware of the necessity for mounting very large programs for the culturally deprived, many of whom are concentrated in the large cities. The federal government, state governments, and local and county school districts are pressed hard to make difficult decisions concerning the allocation of available resources. More resources will be devoted to the education of the children of the poor, and these resources should be employed with maximum effectiveness. At the same time recent educational gains in other areas must not be lost. Any system of budget measurement that can contribute, however modestly, to such difficult allocation decisions is obviously highly desirable.

A third consideration, closely linked with the second, is that new programs in the war against poverty, some sponsored and others promoted by the Office of Economic Opportunity, will increasingly require a careful analysis of program accomplishment. Again choices must be made, this time among education and such other programs as public health, recreation, neighborhood improvement, and adult retraining. Although program and performance budgeting does not assure that such choices can be made easily, it can at least assure that such choices will be better informed. It is possible to contemplate the time, in the not too distant future, when all expenditures for the development of human resources, by both public and private agencies, will be brought together in a human resources account for major metropolitan areas in the United States. It is certainly possible to plan for expenditures on human resources in the same general way that we now plan and project expenditures, in many metropolitan areas, for physical resources.

Third, we are well into a period of significant experimentation in new teaching techniques and methods. Team teaching, teaching machines, individualized study, and remedial and special education programs have precipitated administrators and classroom teachers into a wave of innovation. All of this must be evaluated in economic terms by careful comparisons of costs and benefits so that best practices can be discovered and employed by other school districts. In all of this, again, program and performance concepts will be essential.

Finally, recent developments in student testing and evaluation, and in electronic data systems make possible the systematic collection and analysis of information on a scale not previously attainable. The Iowa Educational Information Center and New England Education Data Systems, for example, can provide to school administrators much of the information necessary for evaluation of school performance.

Before confronting the conceptual and operational difficulties encountered in a program budget system for education, it would be well to inquire as to whose interests might be served by such innovation. The foregoing review of experience in general government agencies certainly suggests that performance concepts are of very little help to the legislator. If this experience is controlling, it may be provisionally concluded that school boards are not likely to benefit greatly from the introduction of performance budgeting, nor are city and county councils and state legislatures that review educational budgets. City councils in large city systems, for example, are concerned with highly generalized choices among education, health, highways, police protection, etc. Performance measures can comprise only a small part of the materials for the value judgments on which such choices must rest.

Likewise, it would appear doubtful that in most communities the interests of the citizenry are likely to be substantially better served by performance measurements. A performance budget may help to "sell" a particular program in particular circumstances, and this is not unimportant, but so can an attractive brochure.

Given the strong tradition in most school systems of central authority for budget preparation, an authority typically lodged in the hands of the superintendent and his budget officer, it would appear that any major budgetary innovation must serve the superintendent's needs if it is to be viable. Indeed, there is little point in the exercise if it does not serve the superintendent's needs. Program and performance concepts must be so structured as to make this the primary objective. Budget classification should permit the comparison of program outcomes both over time and among programs at a given point in time. Program and performance concepts should facilitate the evaluation of new teaching techniques and judgments about the costs and gains from special programs such as remedial education. This is information that is needed by the superintendent.

There is also the possibility that program and performance budgeting might encourage school administrators at the building level or principal level to become more cost-conscious and more sensitive to the possibilities of reallocating resources within their budgets. This last, however, in the jargon of economics, would be a spill-over benefit, and should not be counted on as the major justification for budgetary innovation.

Conceptual Problems

Up to this point no distinction has been made between program and performance, and indeed both literature and practice abound with semantic confusion on this point. However, it would certainly be more convenient for all interested persons if some reasonably careful definitions were employed. The best definition should associate program with a set and performance with a subset, as the new mathematics would have it. Maintenance is a program; food service is a program; attendance services constitute a program. Performance is measurable within such programs by defining specific units such as acres of grounds maintained, or square feet of floor space cleaned. Therefore, it is possible to have a performance system of reporting based on measureable work units quite independent of the budget system. It is possible to have a program budget with selected performance measures related to the program. And it is possible to have a program budget that is fully costed out in performance terms. This last is the "ideal" system.

When the first systematic work was done on performance budgeting in the early 1950's, it was soon discovered that classification is relatively simple if there are definable end products commensurate with the work load of an agency. The Forest Service and the Bureau of Land Management in the U. S. Department of the Interior were often used as illustrative examples for performance budgeting because in such agencies there are a large number of specific end products—miles of forest trails maintained, acres of trees planted, and the like.

As for schools, there are some separate activities, such as maintenance, food service, and attendance services, where it would appear that end products can also be defined with relative ease and employed as a basis for performance measurement. But no one would argue that these represent the important outputs of a school system. Rather, these are auxiliary services. The important output is the educational attainment of children, very broadly defined to embrace technical skills, an appreciation of literature, art, and esthetics, and a sensitivity to human needs and relationships. This, surely, is a very complex matter. Few of us would be satisfied with judging school performance solely on the basis of scores on standard achievement tests, although all of us would feel that verbal and quantitative skills are important and that the schools have a major responsibility for improving such skills.[17]

The dropout rate, or its converse, the holding power of schools, is also an important measure of school performance, but again it is just one of the ways by which educational outcomes can be judged. For some high schools, but not for all, the proportion of graduates completing post-high-school education is significant. For some high schools the contribution to a reduced neighborhood delinquency rate is an important test of performance.

Economists, of course, would like to be able to judge schools and school programs on the basis of their contribution to lifetime earnings. Although much general information is now available on lifetime earnings, the data do not yet permit an assessment of the earnings value of language training, for example, as against social science training.

Recent efforts to measure productivity in government, a concept closely related to performance, as the term is used here, have concentrated on programs that do have a definable end product and not on programs that are essentially of a service character.[18] In fact, economists do not attempt to value services at other than the cost of inputs, for both the public and the private sector, or the price of output for the private sector. The measurement of service performance, in terms of effect, for either the public or the private sector is always difficult.[19] However, the game is worth the candle and school administrators and budget officers who make the attempt are at least secure in the knowledge that a great many others are struggling with similar problems in a great variety of circumstances.

In the practice of performance budgeting, activities are very often substituted for end-products since these are easier to define and are very often related in a straightforward fashion to existing organizational structures. Curriculum research and evaluation are an activity, health services are an activity, psychological and guidance services are activities. Here there is no precise end-product that is uniform over time, but there are resources employed for the discharge of a particular function within a school system. A performance approach based on activities requires an aggregation of all appropriate costs for that activity, a comparison of such cost over time, and some effort to isolate particular characteristics that may give an indication of the volume or quality of the output.

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[17] For an economic examination of this output see: Kershaw, Joseph A., and McKean, Roland N. *Systems of Analysis and Education.* Santa Monica, Calif.: RAND Corporation, 1959.

[18] Executive Office of the President, Bureau of the Budget. *Measuring Productivity of Federal Government Organization.* Washington, D.C.: Government Printing Office, 1964.

Kendrick, John W. "Exploring Productivity Measurement in Government." *Public Administration Review* 23: 59-66; June 1963.

[19] See the excellent study: Gabis, Stanley T. *Mental Health and Financial Management.* East Lansing: Michigan State University, College of Business and Public Service, Bureau of Social and Political Research, 1960. 68 p.

There is also the difficult matter of the relationship between performance and organizational structure. If budgeting is to serve in its traditional role as a "tool of management," administrative responsibility must be assigned for particular activities in an organizational context. Some one must be held responsible for the budget and for performance within it. Anything designated as a program must have a program supervisor. Those who are responsible for performance within the program must be aware of the units by which they are being measured and held accountable.[20] When programs cut across organizational lines and are jointly administered, any program or performance approach encounters difficulties which are not easily resolved. But even here some kinds of measurements are not impossible.

Systems of performance budgeting vary widely in their relationships with underlying accounting structures. It is possible to develop a highly workable performance budgeting system with no visible accounting support if a reporting system independent of the budget is employed. The experience of the City of Los Angeles is a testimonial to this possibility.[21] At the other extreme it is possible to attempt a thoroughgoing revision of the whole structure of accounting and budgeting to assure that the categories employed in each are synonymous. A system of this type is now in use in the U. S. Department of Defense. Fortunately, performance budgeting has the great advantage of flexibility. A firm accounting support can be developed for some programs but need not be developed for others. Some activities within a school system may lend themselves to a complete recasting of accounts and budgets along program lines, but other activities may not. There is nothing wrong with a hybrid system; indeed it may be the best attainable in most circumstances.

Where it is possible to provide firm accounting support for a performance budget system, it may also be possible to go one step further and undertake accrual accounting so that supplies and equipment are charged as they are used rather than when they are purchased. Accrual accounting is indeed an ideal procedure and any claims to completeness must not neglect it, but it may simply not be worth the effort for a great many programs where supplies and equipment are relatively minor in financial importance. However, equipment costs are of increasing significance in contemporary education, and if careful attention is to be paid to the costs of programs, such equipment must be amortized over its useful life.

Up to this point cost problems have been viewed from their in-school dimensions, but there is another variety of costs which has received considerable attention recently at the hands of the economists of education. These are the real costs of education which do not appear in any school budget. They may consist of the value of police protection, fire protection, water supply, and sewage treatment provided free of charge by the municipality to the school district. They may consist of the costs incurred by parents and students for the purchase of textbooks, supplies, and transportation. Real costs may also be defined to include the annual value of tax exemption of school buildings and possibly the forgone earnings of students in school.[22]

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[20] Accountability in a financial sense is, of course, the great virtue of traditional object or line-item budgeting. The need for continued attention to financial accountability usually means that line-item budgeting cannot be neglected but must accompany performance classification.

[21] Eghtedahri, Ali, and Sherwood, Frank, *op. cit.*

These are costs that may not be of concern to the budget officer or the school superintendent, but at least some of them, such as the value of municipal services provided to the school district, may be of concern to municipal budget officials. In evaluating the costs and benefits of education to the community as a whole, this total range of real costs must be included. The general point is that there are many ways to define the costs of education, and the definitions will necessarily vary in accordance with the purposes of the analysis.

Applications to Public Education

A program budget for a school district should not be introduced as a control device but rather as a system for the evaluation of school output and school costs over time. Moreover, if a superintendent decides to install a system of program budgeting, the prerequisite is an adequate central budget staff. Program and performance concepts are more sophisticated than traditional line-item budgeting.

In the installation of a program system the first decision that must be made, for any specific school system, is a determination of the degree to which administrative structures should be altered in the interests of budget structure. If a school district has a tradition of highly centralized budgeting, as is generally the case, it would appear unwise to attempt to alter this at the outset. In specific situations there may be important gains from the involvement of teachers and principals in the initial stages of budget preparation. But if the prevailing practice is noninvolvement, a program and performance approach can still make important contributions to an improved data base for decisions. As indicated, program budgeting can be a tool for either centralized management or for decentralized management. There would appear to be no reason for disturbing existing patterns in any school system wholly in the interest of new budget techniques.

The first step in the installation of a program budget system is an inventory of all activities in a school district and the development of workable definitions of program and administrative responsibility for program. The second step is the development of performance measures for each program. The third step is the introduction of a performance reporting system.

As the foregoing discussion indicates, there are some areas of school operation where a program approach supported by detailed performance data and even careful cost accounting would seem to be immediately feasible. Food services, attendance services, the business office and its functions of accounting and purchasing, and library services are such areas. In these programs there are abundant parallel experiences in general government to suggest that program and performance measurements are feasible, and that they can contribute to cost consciousness and improved economic efficiency.

Then there is a second type of school program—guidance counselling and testing, psychological services, maintenance, and possibly certain remedial and special education programs. Here again there are typically few problems with administrative organization. Someone is already in charge. The quality and character of output, however, may change from year to year, making precise comparisons difficult, if not impossible. Nonetheless, some kinds of performance data can be developed to assist in evaluation.

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[22] See Schultz, Theodore W., *op. cit.*, p. 20-37.

These first two categories of programs may amount to perhaps one-third of the total school current expenditures. The remaining two-thirds, roughly, are made up of general administration and instructional costs. Here the task of introducing program and performance concepts is obviously the most difficult.

For general administration—the expenses of superintendents and principals and the general staffing for the board of education—there appears to be simply no way by which program and performance concepts make any sense. The experience of general government agencies is that such outlays must be budgeted on an activity basis. Some year-to-year comparisons of the cost of such activities can then be made, but there are no criteria available for measuring output or for determining whether more or fewer resources should be devoted to general administration.

Program and performance budgeting for instructional activities is the significant challenge.

The proper program unit for the instructional budget must vary with size. In a large system why not seek to attain the ideal—program costs for subject matter by grade level, with costs assigned to each school in the system.[23] Program costs will then include teachers' salaries and retirement fund contributions, textbooks, and instructional equipment costs that may be properly assignable to the program of, say, social studies in the eighth grade. A program budget so arranged should be supported by data on average teacher salary and class size. These costs can then be compared with educational outputs. The only measurement we are likely to possess for such an output is scores on achievement tests, and while such scores are subject to many limitations, and the hazards of comparison are considerable, they should nevertheless be made. The major uncontrolled factor here, of course, is the quality of student input. As is well known, the socioeconomic background of students is a major determinant of achievement. It may be possible to estimate expected values of student performance, in relation to socioeconomic background, and compare these with actual values to achieve a measure of the school's contribution.

For a specific school within a large city system and for the school district as a whole in medium-sized and smaller systems there are other generalized measures which could be employed to judge performance. These would include, as indicated above, dropouts by grade level, juvenile delinquency or vandalism, and successful completion of post-high-school training by high-school graduates. Given the present state of knowledge about input-output relationships in school systems, these latter kinds of data are indeed difficult to relate to specific school costs, but unless some effort is made to gather and analyze such information, there are no economic or educational guidelines for the allocation of resources within public education.

For instructional programs the significant thing is not efficiency in a narrow, cost-saving sense, but effectiveness in a broad educational sense. Costs can always be cut by increasing class size, or by using obsolete textbooks, or by losing competent teachers to other districts.

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[23] James, H. Thomas. "Modernizing State and Local Financing of Education." *A Financial Program for Today's Schools.* Proceedings of the Seventh National Conference on School Finance sponsored by the Committee on Educational Finance. Washington, D.C.: National Education Association, 1964. p. 50-59. Condensed: *Education Digest* 30: 13-17; December 1964.

It should be emphasized that the performance measurements suggested here can, at best, be very rough indicators of the relative effectiveness of instructional programs over time. Neither will they provide the data for easy choices among alternative instructional programs. Performance measurements will not tell us whether it is better to devote more resources to high-school science teaching than to high-school language training. They may tell us whether the additional resources that are devoted to language training yield measurable and positive results.

Instructional programs that involve new teaching techniques, special education, new instructional equipment, or that are intended to reach groups hitherto neglected, as programs for the culturally deprived, are particularly fine candidates for the application of performance measurements. Educational innovation has long been accompanied by high enthusiasm and little evaluation. Halo effects and experimental effects abound.[24] Unless much more systematic evaluation is undertaken in cost and benefit terms, elementary and secondary education is in danger of learning very little about the effective use of the very considerable amount of resources that are now devoted to innovational programs of all kinds.

There are two other points at which program and performance approaches can make important contributions. The first of these is in an area approach to budget allocation. As Patricia Cayo Sexton so well pointed out, large city school systems do not allocate resources uniformly among the areas within a city.[25] She found, quite simply, that rich areas get more and poor areas get less per pupil, per teacher, and per building. Hopefully many large cities are now on their way to redressing these imbalances; program costs aggregated by areas within a large city would provide the necessary data for such a redress.

A second objective that can be served by a program and performance approach is increased attention to long-range fiscal planning and projection. Most school districts would appear to be considerably more sophisticated in their planning for building programs than they are in planning for operating programs. Both are important and there are some evident interrelationships between the two. A program approach to school budgeting, together with conventional estimates of enrollment, will serve up the data necessary for such planning and projection.

Innovation is never easy, and the application of program and performance concepts to school budgeting is not easy. A program and performance approach will require school administrators to examine educational objectives in relation to the resources devoted to them. This approach does not necessitate an administrative reorganization. It does not require a new accounting system. It can be applied piece-meal and need not be system-wide at the outset. Program and performance budgeting does require a systematic study of relationships between costs and benefits. This is perhaps its only virtue, but this is sufficient justification.

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[24] Clark, Harold F. *Cost and Quality in Public Education*. Syracuse: Syracuse University Press, 1963. 54 p.

[25] Sexton, Patricia C. *Education and Income*. New York, Viking Press, 1961. 298 p.

Progress Report on Program Budgeting in Chicago

Donald W. Hill

THE TERMS *program budgeting* and *performance budgeting* are frequently used interchangeably. While performance budgeting has been developed to a rather sophisticated degree in many municipalities and federal agencies, and to a lesser extent in state governments, it has not been applied generally to budgeting for the public schools. I think a distinction between *program budgeting* and *performance budgeting* may be necessary, particularly as the terms are applied to budgeting for public schools.

Performance budgeting may be appropriate for certain activities performed by the schools, particularly in the functional areas of operation of plant, maintenance of plant, capital outlay, and lunchroom services. The concept of program budgeting is somewhat broader and more suitable for the functions of instruction and administration. The division of programs into activities, subactivities, work units, and finally unit costs is too great a refinement in view of what is presently known about the nature of teaching and learning. Thus, teaching of a given subject cannot be meaningfully subdivided into small work units for budget purposes as might be true for trimming trees, laying blocks of sidewalk, or replacing panes of glass. Definition in terms of the various disciplines within the curriculum, such as English, mathematics, and biology, would appear to be a more logical division.

Over the past four years in Chicago, Dr. Benjamin C. Willis, General Superintendent of Schools, has attempted to revise the budget and accounting structure to make it more meaningful and useful as an aid to management and policy formulation. Within the broad functions of administration, instruction, and the like, a complete reclassification of accounts has been developed with the major stress on programs rather than on the traditional objects of expenditure. For example, English, mathematics, biology, and chemistry are designated as programs under the function of instruction. The measurement of unit cost for each program within the area of instruction uses class membership or number of pupils served.

We are fully aware that a unit of measurement based on membership only, fails to take into account the individual or collective abilities of the pupils or the specific educational objectives which we intend to accomplish.

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Much research in this area is now under way in an attempt to relate expenditures to expected outcomes in more specific terms than simply the quantitative measure of the number of pupils served.

Under the function of maintenance of plant, performance-type activities, such as electrical, plumbing, heating, and upkeep of grounds, have been developed. In addition, each activity under maintenance of plant is divided into subactivities. The activity, upkeep of grounds, for example, has such subactivities as driveway repairs, fence repairs, removal of trees, and landscaping.

Central-office programs are defined in terms of process, project, or purpose, according to the nature of the activity itself. Supplementing the figures are descriptions of functions and planned objectives for the coming year.

Each school has an operating budget which indicates personnel and nonpersonnel appropriations within each program. Appropriations for staff, materials, and services are based on various staffing and rate schedules. Calculations on the basis of these schedules are developed by an IBM 7074 computer. Student membership and attendance data are shown in the operating budget of each school.

The school operating budgets are summarized for each district and finally on a city-wide basis. This condensed version is the document used by citizens, the board of education, and the general superintendent of schools.

The budget for the Chicago public schools is rather detailed, in part because of its "performance" characteristics and in part as a result of the requirements of state law relative to "object" classification.

While "objects" of expenditure are still very much in the picture in Chicago, because of these legal requirements the trend during the past four years has been to downgrade the objects of expenditure in favor of greater program emphasis. The object of expenditure is used only insofar as it is related to a specific program and thus serves to refine that program. Sufficient flexibility is provided to assure that programs are not thwarted because of too much in one object category and not enough in another. Actually, we look upon the objects in terms of a "product mix" in order to accomplish a given objective, the planned program.

Each month we prepare a status report of the various accounts which shows appropriations and expenditures by organizational units and programs. Although approximately 60,000 accounts are involved, the computer renders this a relatively easy task. Each school, district, and central office has in this monthly analysis a workable tool for managing its finances. Flexibility is provided by permitting latitude on the part of the principal in shifting supply appropriations between programs when he feels it necessary in order to achieve the goals of the school. Furthermore, schools are allowed to order supplies and textbooks at any time during the year.

The budget accounts have generally been arranged in such a way as to facilitate the formulation and execution of policy and assessment of results. For example, the program, After-School Reading Classes, is established in the budget in an amount necessary to provide for a certain number of classes, with specific enrollments per class, to be operated a certain number of afternoons per week, over a certain period of time. This program is designed to accomplish [illegible] objectives, the most important of [illegible] might be to raise reading levels. After a reasonable period of operation and subsequent evaluation of results, it is possible to predict fairly accurately what might be accomplished at various levels of expenditure for after-school reading classes. Separation of this program from others in the budget facilitates a policy decision relative to that program. Thus, the budget truly becomes an instrument of policy formulation, as well as a guide in the execution and evaluation of policy.

Programs, activities, and subactivities are grouped under organizational units, which in turn follow the organizational chart. This grouping assures accountability and responsibility by specific individuals. In many instances a program or activity is identical with a bureau, division, or section, as is the Division of Americanization.

Organization of the budget in terms of programs and activities tends to place operations of the schools in a "goldfish bowl" atmosphere. But a presentation on this basis is more meaningful and informative to lay people and in turn may lead to more sympathetic support for the financial needs of the schools.

To cite an example: In the 1965 tentative budget of the Chicago Board of Education 12 programs which were in the 1964 budget were omitted because of lack of funds. When it became apparent to the public that there were insufficient funds to continue these programs with the current tax rate, an urgent plea from the public for restoration of these programs prompted the board of education to raise the necessary taxes to provide them. In this instance, program budgeting worked to the advantage of improvement in the educational program by identifying precisely what the funds were to be used for in terms that no one could misunderstand.

While there is insufficient evidence that program budgeting has been used successfully in the public schools, our experience indicates that this type of budgeting can lead to more effective management and control. In addition, complete and accurate cost data are available for evaluating educational accomplishments. Program budgeting can measure only identifiable results. It should not act as a substitute for value judgments with respect to these results.

Progress Report on Programmed Budgeting in Memphis

E. C. Stimbert

SIX YEARS AGO we predicted that our budget for the 1965-66 fiscal year would be $38,500,000; our proposed budget for the coming year is $38,700,000. In the prophetic fraternity this is significant.

Four members of the Memphis Board of Education are elected; the president of the board is appointed by the mayor. The superintendent's staff is made up of five assistant superintendents and the superintendent. In the fall each director plans his program and needs for the next budget year. These are discussed with and reviewed by the assistant superintendent to whom the director reports. Each assistant superintendent presents his plans to the Superintendent's Executive Council. When the Council approves the total program, the budget document is prepared by the Assistant Superintendent, Department of Business Affairs. After the Board has officially approved the budget, it is submitted to the five-member Memphis City Commission for approval. It is also sent to the State Department of Education.

Seventy-six percent of the Memphis budget is for instruction; 2.6 percent is for administration, while the national percentage is 4 percent for administration. Only 8 percent of our revenue is from local sources; 46 percent is from county sources; and 46 percent is from state sources.

Next year we shall have 125,000 children in 124 schools. The population of Memphis is over 600,000.

My assigned subject today is the progress that the Memphis School System is making in program budgeting. A program or performance budget is one which includes a brief description of the goal or purpose to be achieved by each item of expense. Such a budget includes supplementary material presented in a way that emphasizes what is to be achieved. A budget consisting entirely of a statement of receipts and expenditures emphasizes what is to be spent and not what is to be achieved. Various choices may be presented in the educational plan, indicating what can be achieved by each choice. Because of the detailed breakdown of the educational plan, the performance budget is a somewhat fragmented statement of the educational purposes. So a comprehensive statement is needed as well.

Program or performance budgeting is sometimes called conceptual design or functional plan budgeting. It is not absolutely necessary to use a program budget to show what is to be achieved,

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and we in Memphis, in fact, do not follow this in detail in our budget preparation and presentation. However, our financial coding structure is designed around functions or purposes to be achieved by the expenditure of money and objects or what the money buys in the effort to achieve these purposes. As an example of our function and object coding, how would we classify teaching biology? It would be coded Function 2681 and Object 112. The major function 2 means it is instruction. The subfunction 6 shows it is senior high. The activity 8 shows it is science. The subactivity 1 means biology. The major object 1 means that the service of a certificated employee was purchased. The detail object 12 means that a teacher's services were bought.

Some major functions are instruction, administration, guidance, and operation of plant. Some major object groupings are certificated salaries, classified salaries, food, supplies, and land and buildings. So the very coding of our budgeting and expense accounting during the year is functional or performance program budgeting, even though we do not itemize purposes as we present our formal budget.

Perhaps some definitions of terms are in order. What is a budget and what is the background of budgeting? The budget is simply the work program of a school system. Budgets are more than statistics; they are the heart and being of both individuals and institutions. The budget is an English political development; it was the method by which Parliament relieved the king of the right to levy taxes. The budget is more than a plan of income and expenses; it is a democratic institution of self-government designed to control authority and government and to make sure that the people are the ultimate authority.

More recently cities have adopted budgeting, spurred on by business budgeting, and school boards have adopted budgeting in the past 50 years to a great extent. As we all know, schools are big business; therefore, schools must use methods of budgeting and accounting that have proved successful in the operation of big business. It is always desirable to secure the best results for the money expended.

Instruction has at least three responsibilities: to teach, to evaluate what is being taught, and to plan to do a better job of teaching. Administration plans, executes, reviews, and evaluates. In order that administration and instruction can function as outlined, it is necessary that we understand fiscal operations as a continuing cycle. The development and adoption of the budget, the administration of the budget in which expenses are controlled by the budget, and the evaluation and appraisal of experience in preparation for the next year's development of a new budget are all a part of the total responsibility.

Having introduced the subject of budgeting in Memphis and defined some terms, I should now like to tell you: first, how the Memphis budget is prepared; second, how the budget is adopted; third, how the budget is administered; and finally, some conclusions that may be drawn from our experience.

As you know, preparing a budget is a continuing process, but this process must be completed before the budget can be formally adopted. The essence of budget preparation is planning for better education. A budget is a financial embodiment of a particular educational philosophy. The educational policy must guide the successive improvements which result in a more adequate system. The budget is a summation of the planning of the entire school system, including what is to be taught and how it is to be taught, as well as how much it will cost and where the revenue will come from. The budget touches on many points of school policy that must be determined or accepted by the board of education. The business and financial phases of conducting a school system are truly educational in nature and cannot be separated from the purpose they are intended to serve. The preparation and administration of a school budget are very closely related to the educational program it is intended to promote.

Varying value priorities are expressed in a budget. It is a document setting for the financial estimates of what the plans will cost. A budget is a very practical and political dollars-and-cents expression of what we think is important in education. Programs considered most important have funds budgeted for them; the less important items receive less money or are delayed entirely until another year. A budget is never adequate to meet all educational needs. It is necessarily a compromise with the realities of politics and tax rates. It is never a full and adequate statement of what is needed to solve all educational problems.

Budget planning must consider not only needs but also resources or tax sources or revenue. As I said before, only 8 percent of our revenue is from local sources, 46 percent is from county sources, and 46 percent is from state sources.

You are all aware that budgeting makes many demands on administrators. Budget preparation begins formally in the fall before the next budget year begins on July 1. Thus, both revenue and expenses must be estimated 9 to 21 months ahead, based on the last full year's experience and on the experience of that part of the current budget year which has already passed. Two important questions in budget preparation involve community pressures and communication of needs. We are aware of the pressures that are placed on educators to provide a favored position for particular projects. We also are aware of the need to communicate educational proposals to the community and to gain its support for better education. There are some advantages to more lay participation in budget preparation. It could create a better base of understanding, it could lead to mutual appreciation, it could develop help for school-board members, it could develop moral support for the financial program, and it might even provide some relief from unjustified attacks.

Ninety percent of our budget is for salaries. Because Memphis salaries have been low, the salary schedule is being adjusted upward every year. We use data processing as a tool in helping us to plan our salary schedule. A count is made of the persons currently on the payroll by group and step. On the assumption that each of these employees will remain with us for the full year's service, each one will be eligible for the service increment the next year. The cost of various adjustments to the current salary schedule can be determined within approximately 30 minutes. It has been quite helpful to us to get accurate cost extensions of varying salary proposals while negotiations or salary reviews are in progress. After a salary schedule is adopted, the budget is printed, showing how many individuals in each school are on each step and in each group at what monthly and annual salary.

Another aid in budget preparation from our data-processing services is the Three Year Budget Study. This report shows the actual expenses and the budgeted amount for each function and object over the past three years, and is a very helpful document in preparing the projected expenses. Enrollment growth is projected on the basis of the attendance figures from data-processing reports. Each school receives a monthly report of its expenses by function and object, and we look forward to the day when each school will participate more in budget preparation.

Planning should not be limited to the one year included in the report. Each year should be a part of long-range directions. There should be a degree of stability which will carry the program on from year to year. Yet the tendency to solve problems as they have been solved in the past must be avoided if we are to be as flexible as a good educational program should be.

How, then, is the Memphis Budget approved? Budget presentation, like budget preparation, is an executive function. It is in budget presentation that the professional staff, the board of education, and the community reach an understanding in supporting educational needs. The budget document contains some justification, but oral interpretation and face-to-face conferences are always also necessary. With the completed budget must go a program of interpretation to the board, to the schools, to the city commission and to the public. An adequately presented educational plan inspires confidence in the budget maker and interprets the budget to both the board and the public.

The Memphis City Commission must approve the budget in total or reject it. It may not veto separate portions of the budget.

At budget presentation time, community pressures are exerted for having both the best schools and keeping taxes to a minimum, goals which are not always compatible. A budget expresses the money a community is willing to spend for the education of its children. A budget is the projection of the board's and community's educational plans for one year. Public opinion on education frequently focuses on the adoption of the budget. How do we avoid adverse newspaper, radio, and TV publicity?

Usually the budget is presented to the public after it is fairly well completed. A 200-page detailed budget is given to the city commission and to the newspapers at the time it is being considered for adoption. Local control and initiative are retained in that budget approval is not only on the state level. The review of the budget by the auditors, the city commission, and the state department is in part an outside check on fiscal soundness.

School needs are not presented to the public only at budget presentation time. There is also an annual report of the schools that is given wide distribution each fall. There are weekly 15-minute reports to the public and to teachers over WKNO-TV. And, of course, the best advertising is always word of mouth—that of children and parents who are pleased with the work our schools are doing in the classrooms.

How is the Memphis budget administered? The real test of a budget comes in its administration. Salaries, supplies, and properties must be managed systematically. Financial efficiency demands planning in the day-to-day financing of schools. The school budget is a systematic plan for the management of the schools, both educationally and financially during a particular period. Proper knowledge of and accounting for school costs are important because they make information available for good management decisions.

As funds are spent in the Memphis City Schools, at least four different records in our random access computer are updated. Each month a complete statement of our financial position is prepared on the basis of these accumulations in the magnetic disk file of the computer. One of these is the Function by Major Object Report, a copy of which is given to each assistant superintendent and the superintendent. It shows, in detail, what has been budgeted, spent, and encumbered for each major object within each function. Both unexpended and unencumbered balances are shown. When a function is overexpended, a credit balance is shown in both the unexpended and unencumbered columns.

These reports are given to different groups in varying degrees of detail. The board members and all administrative officials receive a copy of the monthly financial report. This shows all balance sheet items, function and object expense summaries, as well as profit and loss figures on our cafeteria operation. With this information at hand, each administrator knows where he stands each month and whether his expenses are within the budget appropriation. Thus, information is available as the basis for decision making.

We are planning to go to an exceptional type of budget reporting in which only those items which are out of line are called to the attention of each administrator to relieve him of the necessity of reading the report in full. By this method more persons are aware of budget status at any one time.

These detailed cost records aid in improving financial reporting to the schools, the school board, and the public. These reports are a method of tightening control so that at the close of the year the money spent very nearly approximates the amount budgeted. The budget thus is a guide for administrators in conducting the program within the approved plan.

It should be emphasized that the budget is a plan and is flexible. Changes may be made if necessary. The procedures and practices of financial operation should be flexible rather than rigid. We are all aware of the discouraging effect that the rejection of a request for small additional expenditures can have on an imaginative teacher. How much better it would be if our budget programs were flexible enough to provide for the encouragement of good education that these small extra expenses involved.

In conclusion, we need to be flexible in our financial and educational program. Change is inevitable. This is not to say that change is good in itself; but if we do not change and adopt the better, the program will cease to be as good as it was. We have our successes as well as failures, and there are advantages in some of the approaches that we have taken to budgeting and financial reporting. Both our budget and financial reports that are distributed periodically are based on a function or planned program of education coding which lets us know where we are for what we have spent and how far we have gone toward accomplishing certain goals. Because of data processing as an administrative tool, budget preparation is less time consuming and more nearly accurate. About 90 percent of the 200 pages of our budget report are actually printed on our computer, leaving only about 20 pages to be typed. Also, more current information is given. We can inquire into the memory of our random access computer and determine the status of any financial record almost immediately. Pertinent information will help an administrator make better decisions.

A relatively new term for data services is a management information system. Such a system should assist management and faculty not only by reporting what has happened, but also by pinpointing trends, departures, and exceptions. It should help to evaluate the meaning and significance of what has happened and from this to project what will probably happen. Only through a well-prepared plan, such as a budget, can waste and inefficiency be avoided. Eternal planning is the cost of efficiency just as eternal vigilance is the cost of liberty.

Our CPA audit takes less time and costs less because of the better reports and improved audit trails. We have eliminated much labor that is normally involved in the manual compiling of reports and summarizing of statistics that budgeting requires. It is only common sense to free people from time-consuming assembly of reports and factual information in order that they may have more time and devote their energy to guiding educational improvement. The best management information system is geared to re-enforcing strength and remedying weaknesses, continually planning for more competency. We do not say that an excellent management information system will solve all problems, but it is a powerful tool.

The administration of the Memphis City Schools is deliberately seeking solutions to the problems that we have, solutions that involve creative imagination. We seek more effective teaching by adequate budgeting and cost accounting so that emphasis may be put on the most important things. We find a computer-based information system an aid in these responsibilities. Computers are a stimulating new tool in an exciting age. The prediction is made that the computer will have greater impact on society than the printing press. The future of education in the day of computer technology is as tremendous as are its far-reaching benefits to mankind. Secretary of State Dean Rusk was quoted in Atlantic City in the fall of 1964 as saying that the greatest asset of the American nation is the American people, and their greatest strength is their system of education. Good budgeting practices make a contribution to this total process.

PART EIGHT

Co-operative Efforts on Metropolitan Problems

200/201

The Outlook for Co-operation in Metropolitan Areas

Norman Beckman

In urban America today, as in Lord Tennyson's day, "the old order changeth, yielding place to new."

- Though two-thirds of our population live in Census defined metropolitan areas, less than half of this population now lives in the central cities, and almost all of the nation's rapid population growth is concentrated in the suburban parts of these metropolitan areas.
- Projected urban population growth will require replication of our current physical plant and will cause growing pains beyond our present understanding.
- Reapportionment of the state legislatures on the basis of population is resulting in greatly increased suburban representation at the expense of the central city and rural areas.
- Central city and suburban populations, especially in the larger and older metropolitan areas, are increasingly being distributed along economic and racial lines.
- Federal aid for urban development is increasing in variety and amount with the latest proposals, e.g., new communities and regional water and sewerage systems oriented toward new suburban development.
- Local government expenditures, measured in both per-capita terms and as a percent of income, are almost uniformly higher on the average for the central city than for the remainder of the metropolitan area.
- The pattern of local government in metropolitan areas is becoming increasingly complex, marked in recent years by an increasing number of municipalities and special districts and a sharp reduction in the number of single-county metropolitan areas.

Other less quantifiable changes, equally demanding in response, are:

- The disappearance of area-wide political or other institutional leadership
- An uneven allocation of fiscal resources and differing levels of services in metropolitan areas
- The moving out to the suburbs of space-demanding commercial and industrial facilities
- The inability of local governments to take advantage of the economies of scale
- The provision of services, usually by the central city, for the benefit of residents of other units which cannot be assessed against the beneficiaries.

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The message that this bell tolls is primarily for the central city which will have to respond, in Toynbee-like fashion, to the challenge of environmental change. Extinction or mummification of those cities that cannot adapt to change has ample historic and contemporary precedent.

Yet with respect to major reorganization of government in metropolitan areas, the more things change, the more they seem to stay the same. Perhaps one of the saddest statements in the literature of government is that of Thomas Reed, one of the long-time scholars in intergovernmental relations. Reflecting on past efforts to reorganize local governments in metropolitan areas, he concluded:

> Many better and wiser city planners and political scientists than myself have poured out millions of words, by tongue, pen and typewriter, on the same theme, but frankness requires me to say that so far we have accomplished little more than the world's record for words used in proportion to cures effected.[1]

"Metropolitan Government, Where Are You?"

Metropolitan reorganizers, guided by the "principles" of both public and business administration, in the past have attempted to merge outlying municipalities and the central city, with the abolition of existing local governments. When this approach for "one community-one government" failed, a second wave of metropolitan reformers proposed a federated approach whereby suburban governments would relinquish functions which were clearly area-wide in character to a regional government in which they would have representation. The proposed solutions were neat and tidy. A list of such metropolitan governments in the United States today would be short, footnoted with innumerable qualifications.

To better understand this lack of success in metropolitan reform, the Advisory Commission on Intergovernmental Relations analyzed the 18 major metropolitan reorganization efforts that were subjected to popular referendum from 1950 through 1962. The Commission, which was set up on a permanent basis by the Congress in 1959 and is composed largely of federal, state, and local elected officials, did this study under its general authority to "encourage, discuss, and study at an early stage of emerging public problems that are likely to require intergovernmental cooperation."

These 18 reorganization efforts were reviewed to determine the extent to which common patterns appear concerning the kinds of issues involved, the role of various community interest groups, and the promotional methods used for and against the reorganization plans. The purpose was to throw some light on the question: "What factors seem to affect voter reactions toward plans for local government reorganization in metropolitan areas?"

What key issues stimulated the reorganization effort? In nearly every instance, the proponents of reorganization are reported to have focused strongly on two topics: the faultiness of existing local government structure or operations, and the need for urban-type services in outlying areas. The latter often specially involved particular functions, most commonly sewers and water supply, but with fire protection, rural zoning, police protection, and traffic control also mentioned.

Financial implications are reported as important "pro-reorganization" factors for 10 of the 18 areas, with emphasis in some instances upon areawide totals of local government costs or taxes, and in other instances upon the geographic allocation of governmental costs.

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[1] Reed, Thomas H. "Hope for Suburbanitis." *National Municipal Review* 39: 542; December 1950. Quoted with the permission of the National Municipal League.

What were the major arguments opposing the reorganization proposal? Opposition to reorganization proposals also concentrated heavily on a few key points. Financial implications are cited as an important basis for "anti" arguments in all but two of the 18 areas, with concern for who would pay for services at least partly involved in most instances.

In two-thirds of the 18 areas, opponents argued that the proposal was "too drastic or too sweeping." In about half of the 18 areas, observers considered that the prospective effect of reorganization upon local government employees or present elective officials was a major opposition factor.

In five instances, the possible implication of the reorganization proposal for a Negro minority concentrated mainly in the central city was cited as an important negative factor.

Proposals for governmental reorganization in metropolitan areas have faced a largely apathetic public. Typically, within the 18 areas studied, only 1 person in 4 of voting age bothered to cast a vote on the reorganization proposal. In only two instances was there voting participation by as much as one-third of the adult population.

Who was for and who was against reorganization? Those in favor, in descending order of strength of attitude, were metropolitan newspapers, League of Women Voters, central city Chamber of Commerce, central city commercial interests, central city real estate interests, radio and TV stations, banks, central city officials, academic groups or spokesmen, manufacturing industry, utilities, civic research agency, and central city homeowners.

Those opposing consolidation or major reorganization were farmers, rural homeowners, county government employees, suburban newspapers, employees of fringe local governments, farm organizations, officials of fringe local governments, and suburban commercial interests.

A number of factors had an important bearing upon the success of these various efforts at reorganization: a sympathetic and co-operative attitude by state legislators from the area; the use of locally knowledgeable individuals as staff to conduct background research and to develop recommendations; the conduct of extensive public hearings by the responsible plan-preparing group; and careful concern, in the design of the reorganization proposal, for problems involving representation of various districts and population elements.

Some unfavorable factors probably were of telling influence: absence of a critical situation to be remedied or of widespread popular recognition of such a situation; vagueness of specification as to some important aspects or implications of the reorganization proposal; active or covert opposition by some leading political figures in the area; discontinuity or lack of vigor in promotion of the reorganization proposal; popular suspicion of the substantial unanimity expressed for the proposal by metropolitan mass media (newspapers, TV, and radio); inability of the proponents to allay popular fear of the effects of the proposed reorganization upon local taxes; failure by the plan proponents to communicate broadly, in a manner to reach relatively unsophisticated voters as well as others; and failure by the proponents to anticipate and prepare for late-stage opposition efforts.

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Breaking out of this too rigid consolidated metropolitan government mold are a host of new thoughts, developments, and actions in response to the changing governmental environment. These changes have, by and large, been incremental rather than revolutionary. Lack of public receptiveness to reform plans is not only a question of "selfish vested interests" but also a tribute to the viability of our intergovernmental system that permits a wide variety of innovation in political form. As Ranger's cameras indicated that there are craters in the craters of the moon, a more fine-grained look at metropolitan governmental reorganization and co-operation indicates a continuing series of adaptations within the existing patterns of government. Some of these adaptations are the old work horses of reorganization—annexation, use of extraterritorial powers, intergovernmental contracting. In addition, there are a number of promising new developments and trends in governmental co-operation.

In going on to describe these new approaches in more detail, it may be desirable to say a word as to what we really want in the way of local government in metropolitan areas. Ideally, our local governments should be big enough or have other arrangements for meeting citizens' expectations. They should be able to raise adequate revenue and raise it equitably. They should be able to take advantage of economies of scale and, at the same time, be accessible and controllable by the people.

Five new trends or precedents in governmental adaptation that contribute to these ideals deserve examination in more detail: (a) a new look at political party organization as a means of providing metropolitan leadership; (b) state constitutional revision to remove ancient encumbrances and establish new governmental machinery for metropolitan areas and other state actions that cut through the constitutional and jurisdictional maze to meet urban problems; (c) federal, state, and local equalization techniques to compensate for physical disparities among local governments in metropolitan areas; (d) the urban county, alone or in co-operation with the city, as a new metropolitan form; and (e) the federal role as a "beneficent bully" to ensure that central cities and suburbs act together if they are to act at all.

Party, Anyone?

The classic functions of political parties in the United States are to provide leadership and to reconcile diverse interests. These functions are precisely what are needed in our metropolitan areas today. Alas, however, party organization in metropolitan areas is merely a pale reflection of the existing pattern of government in metropolitan areas—determined by state law, election districts, historic boundaries, and the lack of fresh thinking in the parties themselves. Further, we have witnessed the decline of political parties at the state and local level as instruments for identifying and protecting the general public interest.

How can the parties play a more significant role in meeting governmental problems in metropolitan areas? Governments have a range of reorganization alternatives available to them, including interlocal contracting, city transfers, and annexation. But what alternatives are available for changes in political party organization in metropolitan areas? Is there a potentially equally wide range of alternatives available? Are new approaches being tried?

Truthfully, we do not know the answers to these questions. Political parties have replaced counties as the dark continent of American government. Studies have indicated the importance of local electoral arrangements in the area-wide or "parochial" attitudes of those elected and on who gets what within the metropolitan area. Voting arrangements that provide for election-at-large or from large districts and from non-partisan ballots tend to reduce the influence of smaller communities and minorities in a county. The fewer the number of city and county board members, the more they are likely to be concerned with reconciling conflicting interests, rather than catering to a special group. Local desires and preferences are subordinated to county-wide programs.

One proposal that deserves a wider audience is *A Proposal To Create a Republican Metro-Political Council in the Tri-State Philadelphia Area Encompassing 10 Counties and 4,709,054 Citizens*. The author, a state political leader, notes the downward curve of the Republican party in urban areas and the need "to *supplement* our Party structure with a unit which will attend to the political realities of today's inter-county, inter-state super-city."

To quote further:

> In terms of practical politics alone, it makes sense for Republicans to adjust. Take 1964 as an example.
>
> Within the inter-county—inter-state area encompassed by urban Philadelphia, the Republican Party was represented by three men seeking seats in the U.S. Senate. Though largely facing the same problems and all campaigning within the area of influence cast by such factors as TV, there was no coordination of candidate or party activity. A minimum of coordination could have improved each campaign, and could have saved money through volume purchases of time and space.
>
> It is recommended that the Republican Parties of Delaware, New Jersey, and Pennsylvania, in cooperation with the County and City Committees of the Philadelphia urban area, form a Republican Council to serve this inter-state 10-county area.

Such a council, the proposal goes on, could develop programs in a multitude of critical area-wide problems, including transportation, water resources, housing, zoning, and race relations.

The advantages of such a reorganization are, of course, not limited to any one party. Out of such thinking can come tomorrow's effective urban political organization leadership and public policy; it can revive the central city political machine and add structure and form to today's suburban political efforts.

Statehood in the States

The state governments are being propelled into new ventures by (a) increasing urbanization (39 states are now more than 50 percent urban) (b) reapportionment, (c) the partnership commitments flowing from additional federal action, and (d) a better understanding of the available state tools for reform of urban "jurisdictional fallout."

Most fundamental of the responses is state constitutional reform. One of the byproducts of the Supreme Court's decisions on reapportionment is the interest and impetus provided for long overdue overhauling of state constitutions. Parenthetically, it might be noted that recent lower court decisions have indicated that the one man-one vote principle may be applied to county and city governments, as well as the state legislature. The shake-up in local electoral systems will also present new opportunities for metropolitan reform.

Michigan's new constitution contains improvements that other state and local units might well follow. The constitution provides for county home rule and methods for local governments to perform services co-operatively, broader taxing authority for local units, establishment of metropolitan governments and area-wide multipurpose authorities, the consolidation of counties, and the transfer of functions among jurisdictions.

Studies by Alan Campbell of Syracuse University indicate that the most dynamic part of the American economy today is not the private sector or federal activities, but state and local governments. While the private economy grows at a rate of 3 to 5 percent a year, and federal general expenditures increased 28 percent in the last decade, state and local expenditure during that period increased 128 percent. This increase in expenditure has been accompanied by different rates of growth for the various governmental activities performed at the state and local levels. Thus, while general expenditures increased 128 percent, education increased 164 percent. On the other hand, welfare, with an increase of 80 percent in the last decade, has declined in importance.

State-wide geographic authority, absolute legal power over local governments, and a broad tax base are involving the states in other urban activities, including provision of direct urban services. Water supply is the most fundamental of these services. New York, New Jersey, and California all have state-wide programs. Worth special citing is the December 1964 agreement between California and the Atomic Energy Commission whereby the state will contribute $80 million toward the total $100 million capital investment for a joint new atomic power plant. One of the largest in the nation, the plant will help California transfer water to the more arid but populous areas of the state by operating electrically powered pumps to lift water 2,000 feet over the Tehachapi Mountains. The California project will be part of an approved California Water Plan, constituting one of the most ambitious public works developments ever undertaken.

Open space and recreation also lend themselves to state-wide administration. While the 1964 Congress enacted a major land and water conservation fund to provide state and federal outdoor recreation areas, the states themselves pushed forward on an unprecedented scale for park, open space, and recreation programs of their own. State programs involving hundreds of millions of dollars have recently been initiated or approved for submission to the voters in Minnesota, Texas, Indiana, Washington, Florida, and Connecticut.

To combat the inherent inertia to reorganization proposals, Oregon in 1963 passed "an Act to provide for creation of metropolitan study commissions to study and propose means of improving essential governmental services in urban areas." This general state legislation provides that metropolitan study commissions may be set up by local governmental action or by petition of the voters. Commission members are appointed by the governing bodies of the local jurisdictions. The real strength of the legislation lies in the requirement that, to overcome apathy or obstruction, after a reasonable period these recommendations for changes in boundaries or the administration of services must be voted on by the residents of the affected area. No further legislation is needed to initiate studies or implement recommendations after enactment of such general state legislation. Early in 1964, the local governments of the Portland metropolitan area took advantage of this legislation to trigger the establishment of such a study commission.

With surprising frequency, municipal incorporations have been formed solely to obtain a liquor license, pre-empt a tax base provided by a new industry, avoid zoning or gambling laws, or to resist annexation by an adjacent municipality. Minnesota broke new ground in 1959 by establishing a state municipal boundary commission to referee annexation disputes and approve only those municipal incorporation requests meeting strict population, economic, and structural standards. No fewer than six states followed suit in 1963 and 1964 by enacting incorporation control legislation.

The Great Equalizer

Although resources needed to meet the social and economic problems of our metropolitan areas are, in large part, present within the metropolitan areas themselves, these resources, being unevenly distributed, are not necessarily available to those parts of the area most in need. Furthermore, these problems will not be solved simply by transferring funds and functions among jurisdictions in metropolitan areas, though in many situations such adjustments will help. The approach needed is also nationwide. Federal and state governments have a crucial role to play in better matching capacity with need wherever that need exists. National and state responsibilities and resources, as well as local resources, are involved in metropolitan co-operation.

In contrast to the more traditional approach in metropolitan reform—restructuring and consolidating of local jurisdictions—proposals directed to offsetting fiscal disparities among governments in a metropolitan area are compensatory in character.

At the federal level, the Advisory Commission on Intergovernmental Relations has urged that the federal government recognize variations in local fiscal capacity in making grants to local governments. While there are differences in state capacity to finance public programs of national concern, the range of variations among local governments in their capacity to support co-operatively financed public programs is even sharper.

The Commission has urged that federal grant-administering agencies assemble data required for improving measures of state and local fiscal capacity and tax effort in order to assess the extent to which local fiscal variations, in particular, should be recognized in distributing federal grants.

Insofar as disparities exist between central cities and suburbs with respect to the underprivileged, the fiscal burden of these disparities on the welfare budgets of individual localities in metropolitan areas is already considerably modified. This is because of the large extent to which federal and state governments finance the so-called categorical public assistance programs. These programs of old age assistance and aid to the blind, needy, and disabled, which amounted to $4,218 million in 1963 accounted for over 90 percent of all public assistance payments.

In the fiscal year 1963, the federal government paid for 60.4 percent of the categorical aids. Of the total state-local share, state governments as a whole paid 80 percent, and local governments 20 percent. The poverty program initiated by the Economic Opportunity Act of 1964, and the President's proposals for aid for elementary and secondary education, are other recent examples of the now well-established trend in new federal grant-in-aid legislation to recognize variations in state and local fiscal capacity.

At the state level, the Commission has recommended that each state examine its present system of grants and shared taxes and remove all features that aggravate differences in local fiscal capacity to deal with service requirements in metropolitan areas and that encourage or support the proliferation of local governments within such areas.

State grants and shared taxes may aggravate disparities by acting to proliferate local governments within metropolitan areas, whether or not these effects are intended. One example is where a state shares income tax revenue with local governments solely on the basis of place of residence. Wealthy citizens, in particular, are given a tax incentive for leaving the central city and incorporating their suburban communities in order to get a share of the state income tax revenue and thereby lessen their property tax load. In other cases, where state grants are made to all incorporated units, there is a tendency to stimulate new incorporations without regard to whether they are in the interest of the best long-range pattern of governmental development in the area.

In the case of the income tax sharing example, if the state revised its sharing formula to reflect place of employment as well as residence, it would be pursuing a more favorable and equitable course for the central city since approximately three times as many workers come to the central city to work as go in the opposite direction. By the same token, if a state shared income tax revenue with the local governments exclusively on the basis of place of employment, it would be providing positive encouragement to consolidation of governmental units.

The Commission has also proposed that the states consider the merit of using state grant funds to equalize local property tax loads among local jurisdictions in metropolitan areas. The property tax is the major, and in many cases the sole, source of tax revenue of local governments. In 1962, it accounted for over 87 percent of local tax revenue. The extent to which local units use the property tax is, therefore, probably a good general index of the pressure of local public service needs and the degree to which the locality is taxing itself to meet those needs.

Armed with comparative tax load information, a state can equalize local government property tax loads and effort by simply devising a distribution formula which channels the greatest share of state aid to the districts with the highest effective tax rates, with no expenditure strings attached to the grant. Essentially, this is the plan and objective of Wisconsin's recently enacted residential property tax credit system which is designed to channel a portion of its sales tax to those in greatest need of property tax relief.

Finally, in order to reduce educational disparities, each state should make a critical review of its present school grant formula to insure that it contains factors designed to measure as accurately as possible local tax effort and community educational requirements. It is of critical importance to insure that the state financial contribution to education is geared to equalizing educational opportunity by bringing local fiscal capabilities and needs into close alignment.

Over half of the states have refined their measurement of local tax effort by adopting the equalized property tax assessment concept, thereby warding off any attempt on the part of local officials to receive a disproportionate share of the state's school aid fund through the expedient practice of competitive undervaluation. Seven other states have turned to some index of capacity unrelated to property values because of the lack of reasonably comparable information.

In the appraisal of local educational needs, refinements in measurement techniques are just as critical. This is clearly reflected in the growing awareness that traditional measures of local educational responsibility, such as population or average daily attendance, fall short of presenting an adequate local needs index. A recent survey made by a University of Wisconsin faculty group isolated 52 factors which describe local educational responsibilities. The 52 factors describe eight classes of characteristics of local school districts: pupil-teacher-administrator ratios, character of the student body, number of students, special services, character of the teaching staff, subject areas of the high-school curriculum, special education programs, and character of the school district population.

Some states have gone beyond equalization grants for the purpose of meeting educational problems in cities and suburbs. Grants are made, for example, to help finance school building construction in municipalities. New York State has special programs of aid for education of non-English-speaking pupils, culturally disadvantaged children, and aid for educational services to children with special behavior problems.

Taking Account of Urban Counties

Another prime example of change where change was least expected is in county government. Excepting New England, county government is on the move in urban sections of the country, and it will ride the wave of the future with regard to metropolitan government organization and political power. The reason for this is that county government has a priceless asset which many municipalities do not have—what students of government would term *adequate areal jurisdiction*, but what can better be described by the five-letter word *space*.

Our technological changes which have the effect of "collapsing time," growing population, and increasing demands for scarce resources make the planning and often the administration of urban services more and more areawide. In addition to space, the county has high political feasibility (it exists, therefore it is feasible). It is directly accountable to an electorate that, under recent court decisions, will be reasonably representative. Finally, it has a broad tax base and well-established working relations with the state and federal governments on the one hand, and the cities on the other. A reorganized urban county is likely to make any urban area more manageable, though its utility is probably greatest in the small and medium-size metropolitan areas which are undergoing population growth at twice the rate of metropolitan areas as a whole.

Some people may shrink in revulsion at the mention of the word *county*. In too many states the county is straitjacketed by constitutional limitations. Counties average 21 elected officials, many of them constitutionally named, and their boundaries are constitutionally fixed. Most states do not permit adoption of locally drafted county charters. On the other hand, reorganized county government vested with the authority to perform municipal functions is responding vigorously and imaginatively to meet urban needs in many parts of Virginia, California, Tennessee, Florida, Oregon, Maryland, New York, and other states. An increasing number of counties now have elected chief executives, counterparts to the city's focal point of politics and administration, the mayor. Indeed, the two major metropolitan governments in the United States—Dade County, Florida, and Nashville-Davidson County, Tennessee—are essentially reorganized county governments.

Perhaps the most significant state legislation enacted this year is the joint resolution of the Utah legislature enacting a new article of the State Constitution authorizing creation of "metropolitan region governments." This proposed amendment, if adopted by the voters, establishes a procedure whereby county-wide or bi-county metropolitan government can assume the powers and functions of existing governmental units in its area, provide for revenue to support the regional government, and assume the powers of the existing governmental units. Such metropolitan governments can be established by a majority of the voters in any county with a resident population of over 75,000. Utah, with three fragmental metropolitan areas today, may soon have the unique power to establish new consolidated county-wide metropolitan municipalities.

Federal Urban Affairs

The President's State of the Union Message on cities (carefully defined in a footnote as meaning "the entire urban area—the central city and suburbs") proclaimed as national policy what is already taking place, agency by agency, on an *ad hoc* basis. The State of the Union Message called for launching an effort to make our metropolitan areas better and more stimulating places to live, with "new and existing programs . . . open to those cities which work together to develop unified long-range policies for metropolitan areas." The "cities" message proposed new programs which will

> require sound, long-range development programs as a condition of federal assistance. Wherever it can be done without leaving vital needs unmet, existing programs will also be keyed to planning requirements.

The President has declared that a new $100 million water and sewerage facilities program will make grants "contingent upon comprehensive, area-wide planning for future growth; and will be made only for projects consistent with such planning."

In 1960, the term *metropolitan* could scarcely be found in federal law or regulation. Today the Federal Highway Act requires that beginning in July of this year no funds under this massive program can be approved for a project in any urban area of more than 50,000 population unless there is an established comprehensive transportation planning process for the urban area as a whole. Such a process must be administered by co-operative efforts of local communities in the area and the state highway department.

Under the open-space land program of the Housing and Home Finance Agency the administrator is required to make grants only if he finds that the land to be acquired for open-space use is important to the execution of a comprehensive plan. The comprehensive plan should cover the entire urban area. The program encourages local units of government to join together for open-space land acquisition by offering an extra 10-percent incentive grant to local governments with authority to acquire open space for a substantial part (60 percent) of the urban area pursuant to an interlocal agreement. Similar provisions can be found in the new mass transit legislation and a number of other federal acts and administrative procedures.

The proposed Intergovernmental Co-operation Act of 1965, sponsored by the Advisory Commission on Intergovernmental Relations, would close the gap for the federal programs that do not have adequate local or area-wide planning standards (a) by requiring a finding that projects aided by these federal programs are consistent with the local government's planning objectives; and (b) by providing that applications for federal aid for urban renewal, hospitals, air pollution, water and sewage facilities, and the like be reviewed and commented on by an official metropolitan planning agency as to whether the project would contribute to the implementation of development plans for the area. Finally, the proposed act, S.561, upon which hearings have just been completed in the Senate, would favor general local governments—cities and counties—over special districts as applicants for federal aid.

Conclusion

Concern with reorganization and cooperation has centered on the future of central cities in the nation's metropolitan areas. Are they doomed to further social and physical decline and increased dilapidation? Or are they headed for renaissance in which they will play a new and vital role in which their residents can achieve the good life? Mitchell Gordon, writing in the *Wall Street Journal* (October 16, 1962), has posed the dilemma:

> Forecasters of a renaissance see it in an accelerating pace of urban redevelopment, a gradual broadening of local tax sources, increasing interest in schemes for coordinated local government, the prospective reapportionment of state legislatures to give urban voters better representation, rising state and Federal aid for city programs, and in climbing educational and income levels generally. The optimists concede their views are not based on a belief that any one of these developments has gone far enough to insure the cities a rosier future but rather on a certain amount of faith that they will.

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> Pessimists, on the other hand, point to the persistent flight of better-heeled taxpayers from central to suburban cities and the continuing influx of needy poor, often minority groups with larger broods, to take their place. They note, too, that the central city is saddled with the greatest deterioration and congestion, and they're pessimistic over the ability of cities to substantially diversify their income sources beyond the property tax or to command sufficient helpings of state or Federal aid to meet their growing needs.[3]

The trends cited earlier indicate that time may be running out on the central city. Demands are greater but resources less, and cities no longer hold a monopoly on trade, on culture, and even on apartment houses.

Surely the decline and fall of the central city is not in the public interest. There is too much at stake in the way of human and other productive resources for the federal government or the states to let the situation appreciably worsen.

Can the suburban governments in metropolitan areas turn their backs on the problems of their neighbors? Can they pursue a policy of economic and social autarchy? If they do so, they are likely to pay more for their governmental services, deprive their residents of scarce resources and the opportunity to enjoy an enriched life, and in the long run, reap a harvest of tensions on the one hand and stagnation and the spreading of slums on the other.

Scott Greer, the political scientist and sociologist, states well the case that central cities make sense to too many people to let them go down the drain.

> The central city does have a larger concentration of those who, at every rank, choose a more urban life—those who choose single blessedness, or childless marriages, or few children. It provides, in the apartment-

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[3] Gordon, Mitchell. "Doomed Cities?" *Wall Street Journal*, October 16, 1962. p. 14. Quoted with the permission of Dow Jones & Company, Inc.

> house districts toward the center, facilities for those whose lives are organized in reference to the job, the market, the entertainment media of the Loop or Times Square, and a scattered circle of their friends. The suburbs and the outer neighborhoods of the central city are, conversely, more suitable to the child-rearing family. This division of rewards in the form of residence is, at the same time, related to the life cycle. Those who have not yet married, not yet had children, find the central city an adequate site for their activities, but with the commitments to a family, the suburbs become a logical residence. . . .
>
> . . . . For the most part, the two halves of the metropolis represent different configurations of the same attributes, different "mixes" of the same population types. They are at the same time indissolubly tied together in a common local labor force, within the bounds of a common local economy. The expressway interchange in the center of the city makes possible their scattered residences and common work places.[8]

The cities have most to gain and least to lose by acting now. Acting from political strength which will otherwise ebb away, the cities' best hope is to grasp the nettles of change that have been suggested here:

1. City political leaders should seek a reorganization of local party organization to provide metropolitan leadership to a metropolitan constituency. Central-city experience in party machinery and population should assure protection of city interests in an area-wide party structure.

2. Cities should lead the fight for state constitutional revision to remove the limitations of a bygone era and for state action to provide new tools and new urban services.

3. Cities should devote their new power at the state level to getting more equitable treatment in the distribution of state aid funds. Money is the most effective of cements in intergovernmental relations with both the federal and state governments. Here, the cities, the suburbs, and the urbanized counties can make common cause at the state house and in Washington.

4. Cities should re-examine their resistance to co-operation and consolidation with counties and other neighboring jurisdictions, carefully considering the advantages of a broadened tax base, areal adequacy, and the increased mobility that an area-wide government permits.

5. Finally, cities should support metropolitan-wide planning, voluntary councils of elected officials, and other machinery for communicating with their suburban neighbors. Planning agencies and planning grant requirements provide the opportunity for discouraging the awarding of federal grants to suburban jurisdictions that too often needlessly duplicate central-city facilities for office space, sewage treatment, water distribution, and hospital facilities. This regional machinery can, if used, provide a political forum for documenting the need for co-operation in meeting the welfare, housing, and transit needs of city residents and promote its role as the metropolitan area's center for business, recreation, and culture.

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[8] Greer, Scott. *The Emerging City*. New York: The Free Press of Glencoe, 1962. p. 84-85. Quoted with the permission of The Free Press of Glencoe.

Programs of the Research Council of the Great Cities Program for School Improvement

Howard Aker and Carl E. Thornblad

THE RESEARCH COUNCIL of the Great Cities Program for School Improvement is an organization of the large cities of the United States whose primary purpose is to make studies of unique problems faced by large cities in their effort to meet the comprehensive public-school needs of their citizens, to co-ordinate projects designed to provide solutions to these problems, and to sponsor the carrying forward in practice of the results and findings of studies to promote the improvement of education in Great Cities.

The following large cities are members of the Research Council: Baltimore, Maryland; Boston, Massachusetts; Buffalo, New York; Chicago, Illinois; Cleveland, Ohio; Detroit, Michigan; Houston, Texas; Los Angeles, California; Milwaukee, Wisconsin; New York, New York; Philadelphia, Pennsylvania, Pittsburgh, Pennsylvania; St. Louis, Missouri; San Francisco, California; and Washington, D. C.

The Research Council was organized in 1956 for the purpose of studying problems in education which were of special concern to large cities. It was incorporated on February 27, 1961, as a not-for-profit organization.

The first study undertaken by the Council was of vocational education, "Preparation for the World of Work." Each city studies a different facet of vocational education, sharing findings with the other cities.

Early in 1959 the Great Cities began to explore the education needs of children whose backgrounds were so meager or so different from those of the prevailing urban culture that they were handicapped in their classroom learning. Individual cities have subsequently conducted projects in these "gray areas" of the large cities.

Studies in fiscal policies were initiated by the Great Cities in late 1960. The initial project made a preliminary estimate of the immediate fiscal needs of the Great Cities, an estimate of the probable future revenue from fiscal policies, and an examination of tax sources as avenues for adequate funds.

Teacher education was examined by the Council in the spring of 1962. The cities decided to study the problems related to recruitment, preparation, and retention of professional personnel.

A number of seminars, institutes, and conferences have been provided or planned in co-operation with the Research Council staff. The six meetings

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that have been conducted to date have contributed significantly to the work of the Council.

A three-day Working Conference on Vocational Education was held in Chicago in May 1962. Participating in the Conference were 17 staff members from the 14 member cities. The participants charged with the task of identifying the acute and unique needs of large industrial cities in their attempts to provide opportunity for vocational education, enumerated these needs, reviewed current programs designed to meet these needs, and developed new proposals to overcome the existent road blocks. This Conference was requested by the President's Panel of Consultants on Vocational Education. The report of the Conference was considered by the Panel in the development of their recommendations to President Kennedy.

A team of eight consultants in vocational education met for three days in July 1962 to formulate a vocational education program for "Tomorrow's World of Work." The team briefly reviewed the current needs in vocational education and concentrated on pointing out those areas where fruitful approaches might be developed. A massive and co-ordinated attack upon the problems of preparing our citizens for the world of work was outlined. Specific proposals were directed toward the image of the world of work, lifelong learning, the people to be served, effective teachers, research and evaluation, and area programs. This report was submitted to the President's Panel of Consultants on Vocational Education.

Participating in a clinic on data processing held by the Research Council in co-operation with the Chicago Board of Education in May 1963, were 22 staff members from eight cities. The feasibility study conducted by General Electric for the Chicago Board of Education and the development of a total information service in the Chicago public schools were presented. Systems being developed in personnel and student accounting, materials accounting, and budget and general accounting were discussed. The progress being made in data processing in each city was reviewed, and plans were laid for the further exchange of information.

Teacher education for urban areas was the point of focus for the Research Seminar on Teacher Education sponsored by the Council in co-operation with Northwestern University. School officials from 13 great cities, 18 educators from 16 colleges and universities in various sections of the country, a member of the teacher education staff of the U. S. Office of Education, and the Executive Secretary of the Research Council convened in Chicago on June 8, 1963, and remained in session through June 16. During the seminar, research topics were identified, and 23 proposals were developed for consideration by the cities and colleges and universities. The proposals were grouped under three broad areas: (a) social matrix of teacher education, (b) preservice preparation of teachers, and (c) continuing education of teachers.

Sixteen staff members working with programs for the culturally deprived in the member cities met in Chicago on June 24-25, 1963. The major topic of the two-day session was over-all evaluation design and the application of specific evaluative techniques to emerging promising practices. Measures and procedures to be used in documenting "best practices" were outlined. School-community relations and inservice programs were discussed.

On March 6-7, 1964, representatives from 14 member cities met in

Buffalo to produce a document to present the financial situation of the great cities. The statement, *The Challenge of Financing Public Education in Great Cities*, was written for distribution to the interested public.

The Research Council also conducts a number of special surveys and statistical projects for the purpose of providing member cities with current up-to-date information on salaries, pupil membership, staffing, taxation, and general social and economic data.

The rapid social and economic changes in America create problems requiring new approaches to education and demanding bold action. The urgency and the dimensions of these problems are a challenge to the Research Council of the Great Cities Program for School Improvement.

The Council attempts to meet these challenges through a program of research, demonstration, studies, and surveys.

The membership of the Research Council constitutes a unique educational organization. In the 15 member cities of the Council can be found the necessary populations to conduct reasonable research activities and at the same time provide opportunities to develop extensive demonstration projects built on research. The 4 million students enrolled in the schools of the Great Cities represent over 10 percent of the public-school children of America; the population of the 15 cities, in excess of 25 million, is more than 20 percent of the population of all urban places.

The resources contained in the schools and the communities of the large cities are unrivaled in this country. The lines of communication established by the Research Council and the activities conducted over the past several years are paving the way for the Council to develop a more extensive program of research and service in the future.

The Council's efforts have been directed mainly in four major areas: the world of work, gray areas, teacher education, and fiscal policies. Current projects being initiated include building renovation and a study of the economics of education.

The World of Work

Recognizing that vocational education in the Great Cities was not attuned to today's technology and to the needs of the students to be served, the superintendents of the large cities, early in the spring of 1956, initiated an action program in this area.

Initially, each city studied a different facet of vocational education, sharing findings with the other large cities. After the formal organization of the Research Council of the Great Cities Program for School Improvement in February 1961, the World of Work Program continued to receive major emphasis. With consultative help, a number of cities undertook self-surveys of their total program of vocational education to meet the needs of particular groups of students and analyses of training needed for various occupations.

With the appointment by President Kennedy of a Panel of Consultants on Vocational Education charged with the responsibility of reviewing and evaluating present vocational education programs and making recommendations for improving and redirecting programs, activity by the Research Council was intensified. Two new studies were conducted by the Council and submitted to the President's Panel. With the enactment of legislation embodying the recommendations of the Panel of Consultants, the Council has continued to facilitate the exchange of information among the cities concerning vocational and technical education.

Gray Areas Projects

To the Great Cities of America, seeking, like all Americans, to improve their way of life, have come thousands of men, women, and children of meager backgrounds and limited education. The children in these families, more often than not, are retarded in reading and arithmetic achievement and overage for their grade placement; they have backgrounds so limited that they comprehend only meagerly the ordinary work of the classroom; they are likely to become behavior problems, to fail in their school work, to drop out of school at the first opportunity.

Recognizing the urgency of the situation and the need to develop different approaches in working with these children, the Great Cities early in 1959 prepared a document outlining the problem and suggesting several avenues through which it might be approached. Subsequently, 11 cities developed individual projects based on some phase of the central project and received grants to partially finance their program.

The Research Council has facilitated the exchange of information regarding the projects. Staff directors from the cities have had several sessions at the semi-annual meetings of the Council, consultants have occasionally been provided, inter-city visitation has been encouraged, and from time to time directors have met as committees to plan next steps.

The Council has prepared two publications to acquaint the public and the staff in the various cities with the progress each program has made to improve the education of children of limited background. These publications describe the Gray Area projects in each city and list some of the emerging promising practices.

Teacher Education Project

Preparation of teachers for urban schools was first introduced for discussion and study at the meeting of the Research Council held in Chicago in the spring of 1962. At that time it was decided that the Council would study the area of teacher education—recruitment, preservice preparation, inservice education, and retention of personnel.

As a result of the staff work at this meeting, the problems with respect to teacher education in the Great Cities were tentatively identified, and a working committee was appointed to conduct a survey of existing practices of teacher education in the Great Cities schools and in co-operating colleges and universities. The survey focused attention on promising practices which were designed to improve the quality of the teaching staff as well as to provide staff in sufficient number for the growing school population. The survey report, *Teacher Education Project—Progress Report,* and the follow-up report, *Teacher Education Project—Follow-up Report of Selected Practices,* were published.

A seminar to identify researchable topics and develop guidelines for research proposals in teacher education was held June 8-16, 1963, in Chicago. School officials from the Great Cities and educators from colleges and universities in the metropolitan areas developed 23 research proposals in three broad areas: (a) social matrix of teacher education, (b) preservice preparation of teachers, and (c) continuing education of teachers.

On March 1, 1964, the Research Council submitted to the U.S. Office of Education a proposal for support of programs for the preservice education of teachers of the disadvantaged. School-university centers developed through the co-operation of city schools and colleges and universities would be established in schools in impacted, economically depressed areas of the cities for use in the preparation of teachers.

Fiscal Policies

The Council has conducted and co-operated in the execution of a series of studies in school finances. The immediate fiscal needs of the Great Cities were examined in 1961. Since this initial study, (a) a series of policies was recommended as a basis for action; (b) studies have been conducted to provide a cost analysis of special programs of education in the large cities, including cost comparisons of academic, vocational, and technical high schools and among the various subject areas; (c) studies recently completed deal with the development of basic formulation of cost determinants for operating expenses and capital outlay. Another study currently under way will attempt to show how the structural arrangements surrounding decision-making shape results as measured by educational expenditures. The latest avenue of inquiry involves those economic concepts included in the area of human capital as investment.

Fiscal policies work engaged in by the Council falls into two main categories: studies conducted by consultants, and statistical reports compiled and published by the Council. In both endeavors the work done in each city is under the supervision of the member of the Fiscal Policies Committee from that particular city.

The McLure Studies

In 1961 the Research Council engaged Professor William P. McLure, Director of the Bureau of Educational Research of the University of Illinois, to conduct a study to determine the current status of fiscal affairs in the member cities and to suggest fiscal policies that might be inferred from the facts obtained. There were four questions to be answered:

1. What are the financial needs to meet the educational task of the great city school systems?
2. What is the revenue potential to meet those needs?
3. What are the sources of revenue and the limitations on access to the sources?
4. How does the access of the public school system to the revenue sources compare with other local government?

The final report submitted to the Board of Directors of the Research Council provided the basis for a statement of the fiscal problem and policies which might serve as guidelines for a solution to the fiscal needs of the Great Cities school systems. This report was published under the title, *Fiscal Policies To Meet the Needs of the Great Cities School Systems in America.*

Following the over-all analysis of need in the Great Cities, Professor McLure was assigned the task of analyzing the "extra costs" involved in providing educational programs to meet the unique needs of the children residing in large cities. Average per-capita expenditures were compared for three types of high schools, academic, vocational, and technical. An intra-school analysis of costs was also made by distributing salary payments among eight instructional areas plus an all-inclusive nonteaching professional area. Findings of this study were submitted to the Council's Board of Directors in the final report entitled *Some Determinants of*

Educational Costs in Eleven Great Cities.

A third study under the direction of McLure, "The Structure of Educational Costs," was a more intensive study of the functional components of the programs involving the "extra costs" identified in the first two studies. Eleven components were identified for study, including:

1. Regular instructional programs in elementary schools, including kindergartens
2. Special instructional programs in elementary schools
3. Regular instructional programs in secondary schools
4. Special instructional programs in secondary schools.

Data on the distribution of space and cost for three types of schools, elementary, junior high schools, and senior high schools, were analyzed to determine whether size was a factor of significance on cost.

A review of all three of McLure's studies for the Research Council is currently in the process of publication. In the final summary of his review McLure states:

> The approach of program analysis appears to be promising for development of a functional structure of educational costs. In my judgment some components, particularly salary payments to staff, can be prorated or identified with specific instructional activities and services. I believe that accounting practices can be established to prorate most other expenditures. Thus it is possible to secure combinations of data to test the functionality of new components.
>
> I believe that this approach may be helpful to throw some new light on the nature of educational costs and thus contribute to improvement of fiscal policies at each level of government.

The James Study

The Research Council is currently co-operating with Professor H. Thomas James of Stanford University on an extensive study of how the structural arrangements surrounding decision-making shape results as measured by educational expenditures. At this writing, data from a number of large cities, including all those in the Council, have been collected and are being analyzed.

Statistical Reports

The following reports are distributed periodically to the members of the Council as an information service and are up-dated within 30 to 60 days after any official change in any reported data.

Teachers Salary Analysis of the Great Cities is compiled by the Council staff and published (mimeo) semi-annually, as several member cities operate on a regular fiscal year, July 1 to June 30, and several on a calendar fiscal year, January 1 to December 31. Salary data are reported in the following manner:

1. Minimum and Absolute Maximum for each category (BA, MA, etc.).
2. Salary Progression — Longevity, years required to reach maximum salary for each category (BA, MA, etc.).
3. Salary Progression—Training Premium, increase for training, by category (MA, MA + 1 year, etc.). This is computed as the difference between the B.A. maximum and the maximum for the other categories, MA, MA + 1 year, Ph.D.
4. Salary Progression—Experience Premium, increase for experience, for each category (BA, MA, etc.). This is computed as the difference between the first year's salary and the absolute maximum salary for any one particular category.

5. Salary Progression—Training and Experience Premium, increase for training and maximum experience, by category (MA, MA + 1 year, etc.). This is computed as the difference between the B.A. minimum and the absolute maximum for any other particular category. The information in items 2 through 5 listed above is reported in dollar amounts and percentages.
6. Salary During 10th Year of Teaching, teacher's approximate age: 32-35. This information is also reported by category (BA, MA, etc.).

Sources of Revenue for the Public Schools of the Great Cities is published (mimeo) semi-annually by the Council staff. The fall report also includes a report on pupil membership as of the first official report (20th day, 4th week, 6th week, etc.) of each city. Major revenue sources are reported in dollars and percents as follows:

1. Total budget
2. Total budgeted revenue
   - A. Local sources, each source is reported
   - B. State sources, each type of aid is reported
   - C. Federal sources, each type of aid is reported
   - D. Other revenue sources, such as interest, grants and gifts, sale of securities, surplus, miscellaneous, etc.
3. Other relevant data concerning the budget such as the latest assessed valuation, higher education expenditures, school expenditures by other governmental units not included in the school budget, etc.

All of the items above, except pupil membership, are reported on a single page for each city for easy reference.

Special Reports and Studies

Various reports are conducted by the Council staff for the purpose of answering specific questions of member cities, disseminating information of interest, and getting factual data on problems so that further action can be contemplated by the Board of Directors. Among recent reports of this type are the following:

1. *Strengthening the Property Tax,* a review of two volumes issued by the Advisory Commission on Intergovernmental Relations
2. *Annual Authorization or Expenditures and Digest of Public Laws Enacted by the 87th and 88th Congress Concerning Education*
3. *School Revenues and Public Housing,* a statistical profile of the impact of public housing on financing public schools in the member cities
4. *Social and Economic Profiles of the Great Cities,* a profile of detailed population, economic, and educational data from the U.S. Census of 1960 and other sources. (This report, now out of print, was originally published in October 1963 and is currently being revised for release in October 1965.)

Conclusion

The Research Council of the Great Cities Program for School Improvement is striving to ease the educational problems besetting the large cities of the nation today by co-ordinating their efforts and pooling their staff talents.

One of the best summations of the situation, the reason for the existence of the Council, was given in testimony before the U.S. Senate last summer by Dr. Benjamin C. Willis, General Superintendent of Schools in Chicago and President of the Research Council:

> The educational needs of children in our great cities are unmatched in our history; the problems and challenges equally so. The pressures of population growth, technological change, poverty, mobility, urban growth, and the tension of our time impinge upon the major cities of America. It is in urban centers that people choose to live—must live—under our present way of life. It is to urban centers that our most needy are drawn by a dream of betterment. The great cities are truly impacted areas. The problems are mounting; local revenues, receding. No longer does one city, one State, one area of the United States educate only its own for only its own economy. The highways of America have made us all truly one nation.

PART NINE

Progress in Building and Financing School Facilities

State Participation in Financing Local Public-School Facilities

W. Montford Barr and William R. Wilkerson

STATE PARTICIPATION in financing local public-school facilities was of little significance prior to the turn of the century. Emergency state grants for capital outlays to fiscally weak local school districts were made in Alabama, Delaware, Louisiana, and South Carolina during the first decade of the twentieth century and loans were utilized in North Carolina and Virginia.

During the first quarter of the century about a dozen states experimented with state building aid as an incentive for districts which were consolidating school buildings. The year 1927 was a banner year in state support of capital outlay. Delaware provided major state support of debt service in its foundation program. Alabama later included state support of debt service and capital outlay, although incompletely financed.

Alabama's foundation program, New York's equalization plan, Delaware's assumption of the major proportion of capital outlay, and Ohio's developing program, supplemented by miscellaneous programs in eight other states, constituted the base from which state programs in at least 40 states had been launched by 1965.

The quarter of a century from 1940 through 1965 constitutes the period included in this review of research and procedures in state participation in financing local capital outlays. Significant research was available in the area of state support for capital outlays prior to World War II, but little use was made of it until after the cessation of the hostilities.

Updegraff had proposed in 1922 a varying percentage of state support of capital outlay related to actual cost and local taxpaying ability. Mort had suggested the possibility of capital outlay support as a fixed percentage of current expenditure. Adams in 1928 suggested depreciation, local taxpaying ability, and uniform local tax effort as components of a state capital outlay program for Kentucky. Grossnickle tested Mort's hypothesis in New Jersey in 1931, concluding that debt service was 14 percent of current expenditure. Weller in 1940 favored a standard unit of housing, average cost, and attendance as components of a state formula for capital outlay support. These and postwar concepts, such as Lindman's equalized matching formula and Barr's index of capital need and taxpaying ability, played a major part in the post-

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war development of state support for capital outlay.

Traditionally school facilities in the United States, prior to World War II (with the exception of Delaware), were financed locally from property tax revenues. General obligation bonds were issued and retired over long periods or refunded in desperation. This tradition did not die easily. Consequently many states adopted loan plans, thus enabling localities to get further into debt with little possibility of extricating themselves unless fortune smiled on the local district. A double-track railroad, a large power plant, a major industry, or a pipeline became the deciding factor as to which children would enjoy adequate school facilities.

Our affluent society often bypassed many school districts in the nation. This eventually led to a realization of the overwhelming need for centralized support of school facilities by the state and federal governments. Little will be said about federal support of public-school facilities, since little can be said except to mention emergency depression financing, federal assistance in areas suffering the impact of increasing enrollments resulting from defense activities, and token assistance in the NDEA, as amended. State participation in financing local facilities ranges from Delaware's major support to California's billion dollar loan plan, from the Pennsylvania State School Building Authority to Indiana's and Kentucky's "do it yourself" holding companies—originated in the 1920's—from Florida's, Washington's, and New York's scientifically conceived state grant programs to South Dakota's purchase of local bonds and Oregon's support of construction of junior colleges only. In 1965, state school officers in only 10 states responded, "We have done nothing in the way of state support or loans for local school construction in postwar years."

Purpose of the Study

By 1965 it had become apparent that state participation in the financing of local-school facilities had significantly increased since the last major study in 1956-57. This paper brings together in one report a brief summary of major studies in this area published in 1940, 1951, and 1959 and of numerous unco-ordinated studies and reports since that date.

The project provides a summary of postwar state attempts through support, grants, loans, or other means to reduce the chronic school construction shortage (in many areas of the nation) by state and local co-operative effort.

A major hypothesis was, that in the maze of conflicting postwar approaches to state and local co-ordination in financing local-school facilities in at least 40 of the 50 states, a number of workable procedures might be found which all states could consider.

Procedure

Detailed data regarding state participation in the costs of local school facilities were published by the U. S. Office of Education in 1959 for the years 1950-51 through 1956-57.[1] This classification of state loan, grant, and authority programs to expedite construction of local-school facilities has recently been continued in "Public School Finance Programs" of individual states.

Legislative acts since 1956 were digested and state monographs and bulletins were studied. Additional details and verification of the classification of state capital outlay support programs, state bond-purchasing programs, state support of junior-college facilities, and other kinds of assistance were obtained by correspondence with chief state school officers and state fiscal officers.

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[1] Hutchins, Clayton D., and Deering, Elmer C. *Financing Public School Facilities*. U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 32. Washington, D.C.: Government Printing Office, 1959. 214 p.

Delimitation

Ten states were not included in the 1965 study since chief state school officers reported that they did not in 1965 or had not since the close of World War II provided for state grants or loans to local districts for financing local public-school facilities. Nor were the District of Columbia and territorial possessions of the United States included. Programs of the 40 states which had granted or lent state funds in postwar years for local public-school facilities, for debt service, or for payment of lease-rental to school building authorities were studied.

Related Studies

The number of states participating in the provision of funds for school facilities in the mid-1930's was 12, according to a report by Weller.[2] As shown in Table 1, small grants were provided by nine states and token loans in three others. Only Delaware had a plan which provided significant state revenues. Arkansas had included state support of debt service in its foundation program in 1931. Alabama later followed suit, earmarking a portion of foundation support for capital outlay.

Flat grants, matching grants, variable grants, and revolving loans for capital outlay, and occasionally for debt service, were characteristics of these depression plans. Incentives of local district reorganization and local tax relief for rural areas were dominant purposes in some states. At least four states had partially accepted the concept of state responsibility for supplying some funds for construction of local-school facilities. Alabama and Arkansas included funds for capital outlay or debt service in the foundation program, New York provided special-purpose grants for central districts, and Delaware provided substantial variable-grants to most districts.

Table 1.—State Participation in Financing Capital Outlay as Reported by Weller

State	Year Initiated[a]	Grants	Loans
1	2	3	4
Alabama	1901[b]		X
Arkansas	1931[b]		X
Delaware	1919	X	
Minnesota	1911	X	
Missouri	1913	X	
New York	1925	X	
North Carolina	1903		X
Ohio	1929	X	
Oklahoma	1911	X	
Rhode Island	1829	X	
South Carolina	1909	X	
Wisconsin[c]	1844	X	

Source:
Weller, Gerald M. State Equalization of Capital Outlays for Public School Buildings. Education Monograph. Los Angeles: University of Southern California Press, 1940. p. 5.

[a] From: Burke, Arvid J. Financing Public Schools in the United States. New York: Harper and Brothers, 1951. p. 318.

[b] From: Morphet, Edgar L., and Johns, R. L. Financing the Public Schools. Englewood Cliffs, N. J.: Prentice-Hall, 1960. p. 305.

[c] Recent information from Allen W. Kingston, Wisconsin Department of Instruction indicates that this was final and became operative in 1848, the year Wisconsin became a state.

The 1951 study—Many of the characteristics of state plans for participating in the provision of funds for local-school facilities described by Weller were utilized by other states whose programs were analyzed in a co-operative report by the U. S. Office of Education and the University of California, Berkeley, in 1951 as may be seen in Table 2. The 19 states each had one or more plans for distributing state grants for capital outlay and debt service. Loan plans were also utilized in five of these states, Arkansas, California, New York, North Carolina, and

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[2] Weller, Gerald M. *State Equalization of Capital Outlays for Public School Buildings.* Education Monograph. Los Angeles: University of Southern California Press, 1940. p. 5.

Virginia. Inclusion of state support grants for capital outlay in the foundation program was noted in only three states, Alabama, Florida, and Tennessee. Pennsylvania had created a state school building authority and provided some appropriations for rental assistance.

Appropriations were the source of state funds for programs in 16 states. Arkansas used the state permanent school funds. Both California and Washington supplemented former pay-as-you-go plans by state bond issues, a procedure also utilized in Delaware, Maryland, and North Carolina. Another feature in the loan plans of California and New York was a provision for partial assumption of the loan by the state after a local district had made a speci-

Table 2.—Amount of State Funds Assured for Capital Outlay Purposes

State and fund	Current obligation 1949-50	Amount for period established by law
1	2	3
ALABAMA		
Portion of foundation program	$ 1,530,000	....
ARKANSAS		
State school building fund	1,000,000ᵃ	....
Revolving loan fund	....	$ 3,576,000
CALIFORNIA		
Public school building fund	....	250,000,000
CONNECTICUT		
Public school building fund	....	1,450,000
DELAWARE		
School construction fund	13,711,000	....
FLORIDA		
Portion of foundation program	5,992,000	....
MARYLAND		
School building incentive fund	....	1,279,000
State grants-in-aid for public school construction	....	20,000,000
MASSACHUSETTS		
State school construction fund	1,000,000	....
MISSISSIPPI		
State grant for capital outlay	....	2,000,000
MISSOURI		
Abandoned school building aid	123,000	....
Central building aid	14,000	....
Reorganization building aid	50,000	....
NEW YORK		
Central districts building fund	2,750,000	....
Former districts indebtedness fund	....	350,000
Emergency school building fund	....	300,000
NORTH CAROLINA		
School plant construction, improvement, and repair	....	50,000,000
State literary fund	....	....
OHIO		
School plant rehabilitation fund	....	3,000,000
PENNSYLVANIA		
State appropriations for capital outlay	....	75,000
Public school building authority	....	600,000
Rental assistance appropriations	....	500,000
TENNESSEE		
State capital outlay fund	6,300,000	....
Portion of foundation program	ᵇ	....
VERMONT		
Standardization of schools	10,000	....
Community school fund	3,000	....
VIRGINIA		
School construction fund	....	45,000,000
State literary fund	....	....
WASHINGTON		
School building fund	....	40,000,000
WEST VIRGINIA		
State school building fund	10,000,000	....
Total (19 states)	$ 42,483,000	$418,130,000

Source:
Lindman, Erick L., and others. State Provisions for Financing Public School Capital Outlay Programs. U. S. Office of Education, Federal Security Agency, Bulletin 1951, No. 6. Washington, D. C.: Government Printing Office, 1951. p. 114-15.

ᵃ No fund appropriated.

ᵇ Indefinite.

Table 3.—State Funds Granted to Local School Districts To Assist with the Financing of School Facilities, 1956-57

State 1	Name of fund 2	Amount granted 3
Alabama	Minimum Program Fund—capital outlay and debt service portion	$ 1,955,081
Connecticut	Public School Building Aid Fund	2,963,784
Delaware	School Construction Fund	7,119,320
Florida	Capital Outlay and Debt Service Fund	11,847,804
Georgia	Capital outlay portion of the Minimum Foundation Program	14,302,380
Kentucky	Foundation Program Fund—capital outlay and debt service portion	8,582,000
Maryland	Incentive Fund for School Construction	3,753,139
	General Public School Assistance Loan of 1949	264,809
Massachusetts	School Construction Grant for Capital Outlay and Debt Service	9,770,349
Michigan	School Aid Fund—capital outlay portion	7,250,293
Mississippi	State Public School Building Fund	5,038,363
Missouri	School District Reorganization Building Aid	1,771,562
New Hampshire	School Building Construction Aid Fund	345,978
New Jersey	State School Building Aid Fund	10,899,063
New York	Building Fund for Central School Districts	10,540,915
	Former District Indebtedness Fund	103,064
North Carolina	School Plant Construction, Improvement, and Repair Fund of 1949	171,579
	School Plant Construction and Improvement Fund of 1953	14,046,601
Ohio	School Plant Rehabilitation	845,443
	Fund for Emergency School Building Needs	7,837,526
Pennsylvania	Support of Public Schools Fund	13,150,000
Rhode Island	Permanent School Fund	6,500
South Carolina	State School Building Grants	25,517,253
Tennessee	State Capital Outlay Fund	7,745,000
Utah	Emergency Supplemental State Aid for Buildings	1,429,170
Vermont	Standardization of School Fund	6,336
	Community Schoolhouse Fund	2,805
	State Aid for School Construction	1,157,934
Virginia	School Construction Fund	1,421,504
Washington	Public School Building Construction Account	17,328,902
West Virginia	State Aid for Repair and Construction of Public School Buildings	46,000
Total		$187,019,457

Source:
Hutchins, Clayton D., and Deering, Elmer C. Financing Public School Facilities. U.S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 32. Washington, D. C.: Government Printing Office, 1959. p. 94-97.

fied local tax effort toward repayment. In effect, part of the loan could become a grant.

The postwar years from 1945 through 1951 were a period of rapid expansion in the number of states providing some type of program for state participation in the financing of local school buildings. Considerable refinement in the techniques of state grant and loan plans took place, and substantial sums were appropriated or made available by sizeable state bond issues during these years. The amount of state funds currently obligated in 1949-50 was $42.5 million, about 4 percent of the nation's billion dollar public-school construction program for the school year.

The U.S. Office study—As shown in Tables 3 and 4, grants to assist in financing capital outlays in 25 states totaled $187 million in 1956-57. Loans exceeded $156 million in 11 states, including five of the 25 states which granted funds. The number of states having identifiable programs had increased since 1949-50, and the amounts of state revenue or nonrevenue funds had reached approximately $343 million.

Two territories, now states, had well-defined programs in 1956-57. Alaska granted $1,312,504; Hawaii granted $413,860 and lent $1,590,149. California, Indiana, Maine, and Nevada had inoperative grant programs in 1956-57. Illinois, Minnesota, Ohio, and Wyoming loan programs reported no advances during this year. During 1956-57, state school building authorities in Georgia and Pennsylvania spent

$117.4 million and local authorities in Indiana, Kentucky, Pennsylvania, and Wisconsin spent $216.4 million for local school facilities. Rental payments to state and local authorities by local districts amounted to $73.7 million.

State grants for constructing local school facilities during the years 1950-51 through 1956-57 came primarily from appropriations, although $279.7 million of the $904.7 million total resulted from the sale of state bonds in Delaware, Nevada, North Carolina, South Carolina, Vermont, and Washington. A small amount in Rhode Island was obtained from the permanent school fund.

State grants to assist in local school construction in 1956-57 were earmarked for capital outlay or debt service in 21 of the 25 states which actually made grants in that year. In Kentucky, Pennsylvania, Massachusetts, New Hampshire, and Rhode Island the fund was earmarked for debt service or lease-rental payments. Eleven states permitted use of state grants for debt service, and three states permitted their use for lease-rental payments. State reimbursement was approved for new construction in 20 states, purchase of equipment in nine states, payments for rehabilitation or remodeling in 10 states, accumulation of reserve funds in three, and payments for surveys in Ohio.

During the years 1950-51 through 1956-57, $651.5 million for capital outlay or debt service was lent to local districts by 11 states. Of this amount, $560.3 million was obtained by the sale of state bonds. Only $21.3 million was appropriated from current state funds. Seventy million dollars came from permanent state school funds. In addition, Hawaii lent $5.2 million obtained by sale of state bonds.

Nine of the 11 states and Hawaii earmarked the loan funds for capital outlay. Michigan and New York permitted use only for debt service. Use for sites was permitted in five states, for equipment in six, and for rehabilitation in six.

1964-65

By 1964-65, several states were making substantial amounts of funds available for loans and grants, as is shown in Table 5. New York, for example, granted $130,244,000 in basic state aid for capital outlay purposes. Hawaii and Alaska, which have recently attained statehood, had grant programs.

Table 4.—State Funds Lent to Local School Districts to Assist with the Financing of School Facilities, 1956-57

State	Name of Fund	Amount loaned
1	2	3
Arkansas	Revolving Loan Fund	$ 1,514,868
California	State School Building Fund	120,000,000
Indiana	Veterans Memorial School Construction Fund	3,656,830
Maine	Unorganized Territory Working Capital Fund	34,603
Maryland	General Public School Construction Loans	17,969,000
Michigan	School Bond Loan Fund	91,605
New York	Emergency School Building Fund	3,985,301
North Carolina	State Literary Fund	249,000
North Dakota	State School Construction Fund	1,615,555
Virginia	Literary Fund	4,046,485
Wisconsin	State Trust Fund	3,300,000
Total loaned		$156,463,247

Source:
Hutchins, Clayton D., and Deering, Elmer C. Financing Public School Facilities. U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 32. Washington, D. C.: Government Printing Office, 1959. p. 171.

Table 5.—Amounts Available for State Loans or Grants to Local Districts for Financing of School Facilities, 1964-65

State[a]	Grants	Loans
1	2	3
Alabama	$ 1,955,087[b]	....
Alaska	1,218,400	....
Arkansas	....	$ 1,866,912
California	....	135,000,000[b][c]
Delaware	17,613,060	....
Florida	21,685,708	....
Georgia	51,000,000	....
Hawaii	8,568,626	....
Illinois	....	750,000
Indiana	31,673,348	8,938,133
Kentucky	16,437,660	....
Maine	1,245,000	....
Maryland	....	45,885 000[b]
Massachusetts	21,000,000	....
Minnesota	16,000,000	30,000,000[c]
Mississippi	....	4,700,000
Missouri	2,174,000	....
New Hampshire	1,484,498	10,000,000
New Jersey	17,159,264	....
New Mexico	250,000	....
New York	130,244,000	....
North Carolina	10,500,000	733,286
North Dakota	....	800,000
Ohio	....	....
Pennsylvania	44,082,000	....
Rhode Island	2,263,641	....
South Carolina	12,916,960	6,000,000
Tennessee	9,884,000	....
Utah	3,500,000	....
Vermont	3,017,915	....
Virginia	....	5,500,000
Washington	23,305,775	....
Wisconsin	....	3,600,000
Wyoming	....	2,000,000
Total	$449,178,942	$255,773,331

Source:
Correspondence with chief state school officers.

[a] Connecticut, Iowa, Michigan, Nevada, Oregon, and West Virginia have had postwar programs, but no grants or loans were made in 1964-65 for public-school building construction.

[b] Alabama, California, and Maryland reported additional substantial loans for trade schools, community colleges, or junior colleges.

[c] Portion of loan may eventually become a grant.

California, Indiana, Maryland, New Hampshire, and Ohio made large sums available for loans to local districts. Georgia, Pennsylvania, Washington, Florida, and Kentucky had substantially increased the amounts available for grants.

Florida was helping local districts cope with the population explosion by allocating additional capital outlay support for enrollment increases. The trend toward an increased demand for public education beyond grade 12 is reflected by the fact that several states provided funds to aid localities in financing the construction of community or junior colleges.

By 1964-65, 40 states had participated in some manner in aiding localities to pay for school buildings. Alabama, Florida, Georgia, Hawaii, Kentucky, New Jersey, and New York included support for capital outlay in their foundation programs. New York and Georgia recognized the fact that facilities for secondary-school pupils are usually more expensive than those for elementary-school pupils and granted funds accordingly.

While legislative appropriations are the sources of grants in most states, Alabama, Alaska, Florida, and Indiana relied to some extent upon earmarked taxes. California, Hawaii, Ohio, and Washington derived funds for support for capital outlay from the proceeds of bond issues.

Amounts for grants and loans in 1964-65 were reported as $705 million, approximately 20 percent of estimated public-school capital outlay of $3.2 billion for the year. Grants alone totaled $449 million.

Summary

As shown in Table 6, postwar years saw a significant increase in the number of states participating, through grant or loan programs, in the financing of local public-school facilities. The

Table 6.—Number of States Granting or Lending Funds, Amount Assured, and Percentage of Total Capital Outlay Expenditures from Mid-1930's to 1964-65

Time	Number of states			Amount assured (in millions)	Percentage of total capital outlay
	Total	Grants	Loans		
1	2	3	4	5	6
Mid-1930's	12	9	3	Under $ 10	...
1949-50	19	19	5	42.5	4
1956-57	31	25	11	343	8
Postwar	40	35	18	705[a]	21

[a] Data for the most recent year available, 1964-65.

number of states which have granted funds for this purpose during the postwar period is 35 and the number which have made loans is 18. A total of 40 states have participated, some admittedly for only one year or including only a few districts. The amount of state participation during the 1964-65 year was $685 million, more than 16 times the amount assured in 1949-50. The number of states involved had doubled and the proportion of state participation had increased from 4 percent of public-school capital outlay expenditures in 1949-50 to 20 percent in 1964-65. Several states had incorporated state participation in capital outlay or debt service in their foundation program. Several others had programs closely related to their foundation program.

Other State Participation

States have participated in the financing of school facilities by means other than programs of grants or loans. Among the most significant of such participation programs have been state guarantees of local indebtedness and state purchases of local bonds. The programs of a few states will be described in some detail.

The Michigan School Bond Loan Fund was authorized in 1955. Local boards may apply for a state guarantee of their local bonds before the issues are placed on the market. If annual debt service exceeds a local 13-mill tax rate, the local district may receive an advance from the state equal to the excess amount. Sale of state bonds provided funds for this program. The state controller, as in Maryland, recovers this advance by withholding repayments from state school support grants.

New Jersey, since 1958, purchases local school bonds when a default seems imminent. Coupled with a recent state report to investors concerning the safety of the guaranteed bonds, the state guarantee of local bond issues has strengthened the market for issues by fiscally weak districts.

Indiana, in 1953, authorized purchase from the state permanent school fund of local issues of first mortgage bonds by local school building holding companies provided the issues had failed to sell in the public market. Since 1959, direct advances from the state funds have been made to financially weak reorganized school districts at a rate of 2½ percent. Repayment is assured by withholding annual amounts from state school tuition support grants. Local districts are required to levy a tax rate sufficient to recover any amounts so withheld from tuition support.

South Dakota, which has no program of grants or loans for school construction, uses the permanent school fund of $40 million to purchase local school bonds, upon request, at a 4-percent interest rate. As a result school bonds on the open market sold at an average interest rate of 3.03 during the 1962-63 school year.

Positive action by New York, which requires withholding of state support in an amount sufficient to pay interest and principal of bonds of a defaulting local district, strengthened the position of New York school bonds in 1959, as did a brochure on public schools, a safe investment.[3]

Maryland, since 1949, has issued state bonds and lent the proceeds to local (county) districts. The state controller withholds principal and interest from state support funds due the county. The county must levy a property tax sufficient to meet any additional payments due.

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[3] Levvitt, Arthur. *Municipal Bond Financing*. An address before the New York Society of Security Analysts, May 13, 1959.

The Virginia Public School Authority, authorized in 1962, is not a school building authority. Rather it is a state agency authorized to issue bonds and to buy the local school bonds of counties, cities, and towns provided the interest rate shall be less than if local bonds were sold on the open market.

The many instances of loans, grants, and other assistance by the states to local school districts have resulted in centralization of the financing of school facilities and in some instances in an erosion of local control.[4] Lower interest costs, higher premiums, an expanding market, and state requirements that buildings be erected only when needed at permanent school centers have resulted in measurable economic savings to many local school districts.

Trends in 1964-65

1. State support programs for capital outlay or debt service are generally special purpose grants rather than components of a foundation program.

2. Programs in some states are of an emergency nature and are often restricted to only a few districts.

3. State appropriations continue to be the major source of funds for local school building financial assistance.

4. State loans account for more than one-third of state financial assistance for local school construction. State loan plans are supported in almost equal proportion by appropriation and sale of state bonds.

5. A number of states permit capital outlay grants to be accumulated for future construction. Often future grants may be anticipated and drawn in advance.

6. Most states limit use of state funds to construction of adequate facilities at permanent school centers as determined by study or survey. Reasonable state controls tend to accompany state grants or loans.

7. Details of state programs for cooperative state and local financing of school facilities differ widely among the states. The details are influenced by the economy, tax system, and debt limits of the states.

8. The use of state and local school building authorities is not increasing. The few states widely using corporate financing have each supplemented the program with substantial state grants for debt service or rental payment.

9. Several states have well-defined programs of state financial assistance for the construction of junior or community colleges.

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[4] Educational Facilities Laboratories. *The Cost of a Schoolhouse*. New York: the Laboratories, 1960. p. 124.

The National Inventory of School Facilities, A Data Source

George J. Collins

EDUCATIONAL QUALITY is determined primarily by the pupil, but this quality can be enhanced by efficient teaching, appropriate instructional materials, and adequate school facilities. Classrooms and facilities can affect the quality of the educational processes favorably by providing an efficient and effective environment. Conversely education suffers when (a) the educational program of pupils is limited by insufficient areas, (b) the spaces provided are unsafe, or (c) the teaching-learning functions are inhibited by inadequate facilities.

It is highly important for educational planners to assess the status of the nation's schools and to develop programs which will insure, among other educational foresights, that there will be adequate facilities for pupils. The fact that the impetus for this survey came from an immediate concern for an emergency assessment of schools should not overshadow its importance in providing data which are needed for everyday educational planning. Thus, the survey is significant both for the data which it has brought together for the first time and for the potential uses of this information by school officials, by legislators, and by the public in providing better school facilities for the years to come.

The National Inventory of School Facilities and Personnel originated from federal legislation and Presidential executive orders concerned with civil defense responsibilities and requirements for resource assessment and evaluation.

Objectives of the Inventory

To fulfill the requirements of the President's executive order assigning emergency preparedness functions, an inventory of each public and nonpublic school became necessary. The principal objectives of the inventory were:

1. To locate each elementary and secondary school
2. To determine the structural characteristics of school buildings and general-use facilities
3. To assess the functional status of school plants in an emergency
4. To ascertain the number of pupils and adults on a school site for a typical school day
5. To obtain more information about educational facilities for better analysis and understanding of the educational resources of the nation.

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Inventory of School Plants

The Office of Education received 106,986 questionnaires from July through September of 1962: 92,966 for public-school plants and 14,020 for nonpublic school plants.

Using the school plant as a basic element to conduct the inventory avoids unnecessary duplication in counting the number of rooms and general-use facilities. Duplicate counting is avoided specifically when rooms and facilities are situated in the same building or school plant and are utilized for the instructional program of two or more schools. A school plant as defined in Handbook I, *The Common Core,* "includes the site, buildings, and equipment constituting the physical facilities used by a single school or by two or more schools sharing the use of common facilities." [1]

Organization Level of School Plants

For the purpose of reporting the data from the Inventory, school plants were grouped into three main categories according to whether elementary-school pupils only, or secondary-school pupils only, or both are taught. The level of instruction is not reported for a small group of school plants which are under construction or report only kindergarten, nursery, or junior-college students. Junior-college students and facilities are included only if they share a building during the day with an elementary or secondary school.

A school plant was not classified as a combined elementary-secondary plant unless it had at least 10 percent of its total enrollment at each level. This rule was adopted so that a secondary school with few elementary classes housed in the same plant would be kept in the secondary-school plant category. The number of school plants in the Inventory at each organizational level is shown in Table I and includes 77,400 elementary plants, 14,795 secondary plants, and 14,241 combined elementary and secondary plants.

Schools and School Plants

The National Inventory uses the school plant as the basic reporting unit because it is the natural unit for reporting facilities, and because the exact location of the buildings is an important part of the Inventory. A school plant is frequently equivalent to a *school,* where *school* is taken in the usual sense as an organizational unit of a school system. However, there are instances where a school plant houses more than one school, and less frequently where a single school is housed in more than one plant.

Table 1 shows the number of schools reported in the Inventory, according to the organizational level of the school plant. In determining the number of schools from the Inventory reports, schools housed in more than one school plant were counted as one-half a school at each plant. As compared to school plants, schools are more numerous in all levels of organization but especially in combined school plants, where about 25 percent of the plants report more than one school. The number of elementary schools and elementary school plants are nearly equivalent.

Limitations of the Inventory

The reader is cautioned to interpret statements and tables in this publication with the following limitations in view:

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[1] Reason, Paul L.; Foster, Emery M.; and Will, Robert F. ***The Common Core of State Educational Information.*** U. S. Department of Health, Education, and Welfare, Office of Education, State Educational Records and Reports Series: Handbook I, Bulletin 1953, No. 8. Washington, D.C.: Government Printing Office, 1953. p. 14.

Table 1.—Number and Percent of Public and Nonpublic Schools and School Plants Reported in the National Inventory of School Facilities and Personnel for Resource Evaluation and Damage Assessment for the United States, Spring 1962

Organizational level	Schools		School plants	
	Number	Percent	Number	Percent
1	2	3	4	5
Total	111,241	100.0%	106,986	100.0%
Elementary	77,694	69.8%	77,400	72.3%
Combined	17,843	16.0	14,241	13.3
Secondary	15,169	13.6	14,795	13.8
No organization reported[a]	535	0.5	550	0.5
Public	96,710	100.0%	92,966	100.0%
Elementary	67,517	69.8	67,295	72.4
Combined	15,442	16.0	12,218	13.1
Secondary	13,250	13.7	12,935	13.9
No organization reported	501	0.5	518	0.6
Nonpublic	14,531	100.0%	14,020	100.0%
Elementary	10,177	70.0	10,105	72.1
Combined	2,401	16.5	2,023	14.4
Secondary	1,919	13.2	1,860	13.3
No organization reported	34	0.2	32	0.2

Source:
Collins, George J. National Inventory of School Facilities and Personnel, U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 44. Washington, D. C.: Government Printing Office, 1964. p. 3.
Note: Detail may not add to totals because of rounding.
[a] A school may have more than one school plant, particularly when a new school plant is under construction to replace an existing school plant.

1. The basic reporting element is a school plant. Consequently, relationships of pupils to rooms, pupils to instructional staff, pupils to general-use facilities, and other data are arranged and reported by school plant and not by school.

2. Comparisons of the number of school plants with any existing data are not possible. However, two of the reported items, pupils and schools, give some indication of the coverage for the inventory. For a detailed explanation and comparative tables, see Appendix B, *Technical Notes,* of the report.[2] The following statements are summarized conclusions from this appendix:

a. *Public-school pupils.* Comparisons with the fall 1961 reports of public-school enrollments from the states indicate that the Inventory covered 99 percent of the public-school pupils.

b. *Nonpublic-school pupils.* The inventory includes 84 percent of the nonpublic-school enrollment, according to estimates prepared by the Office of Education for the fall of 1961.

c. *Public schools.* A state-by-state comparison of the number of schools reported by Bureau of the Census in the fall of 1961, or later verified reports from the states, indicates that the Inventory received reports from 97 percent of the public schools. Note that this is only an approximation of the coverage of schools, because practice varies as to whether a combined school is counted as one or more than one school.

d. *Nonpublic schools.* The Inventory contains 93 percent of the nonpublic schools compared with estimates prepared by the Office of Education for the school year 1961-62.

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[2] Collins, George J. *National Inventory of School Facilities and Personnel.* U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 44. Washington, D.C.: Government Printing Office, 1964. p. 128-30.

e. *Pupils and schools.* For the nation, the Inventory contains 97 percent of the public and nonpublic pupils and 95 percent of the schools.

3. In comparing public and nonpublic data from all tables prepared from Inventory reports, the higher response rate for public-school plants imposes a slight bias. Table 2 shows the change in percentage rates in the Inventory for public and nonpublic school plant data as compared with the most likely percentage of schools and pupils. For example, in comparing public and nonpublic school plants, public-school pupils have a 1.9 percent greater weighting than estimates of nonpublic school data and comparative studies of public-school information. The relationship of public schools to nonpublic schools in the Inventory is nearly equal to existing comparative data.

Twenty basic tables are reproduced in the Inventory; the most significant are:

Pupil-staff ratios
Pupil-room ratios
Pupil-library ratios
Pupil-gymnasium ratios
Pupil-cafeteria ratios
Pupil-auditorium ratios
Pupil-school plant ratios
Room and building descriptions by age, types of construction materials, and fire ratings.

Each of the 20 tables was prepared for *public-* and *nonpublic-*school facilities and for each of the 50 states and D. C., making a total of 2,040 tables. For the districts in the 98 largest cities of the states, seven additional basic tables were prepared and forwarded to the states.

Tabulations by Size of School District

Four of the basic tables were prepared by the pupil enrollment size of school districts. The tables include information on rooms, pupils, staff, general-use facilities, and structural characteristics of buildings. The most districts are in the less than 300 group (15,783, see Table 3), but the most pupils are in the 25,000 or more group (11 million, see Table 4).

The largest percentage of older buildings (35.9) is in the smallest dis-

Table 2.—Comparisons of the Number and Percent of Schools and Pupils in Public and Nonpublic School Plants for the National Inventory, Spring 1962, with Selected Surveys and Estimates, Fall 1961

Educational organization	Schools				Pupils			
	National Inventory spring 1962		Selected surveys and estimate		National Inventory spring 1962		Selected surveys and estimates	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9
Total.......	112,886	100.0%	117 493	100.0%	42,265,853	100.0%	43,664,074	100.0%
Public......	96,710	85.6	99 858	85.0	37,069,830	87.7	37,464,074[a]	85.8
Nonpublic...	16,176	14.3	17,635[b]	15.0	5,196,023	12.3	6,200,000[c]	14.2

Source:
Collins, George J. National Inventory of School Facilities and Personnel. U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 44. Washington, D. C.: Government Printing Office, 1964. p. 5.

NOTE: Combined (elementary and secondary) schools are counted twice for comparative reasons.

[a] Schloss, Samuel, and Hobson, Carol Joy. Fall 1962 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools. U. S. Department of Health, Education, and Welfare, Office of Education, Circular No. 703. Washington, D. C.: Government Printing Office, 1963. p. 32.

[b] U. S. Department of Health, Education, and Welfare, Office of Education. Digest of Educational Statistics. Bulletin 1963, No. 10. Washington, D. C.: Government Printing Office, 1962. p. 6.

[c] Estimated by the Reference, Estimates, and Projection Section, Division of Educational Statistics of the U. S. Department of Health, Education, and Welfare, Office of Education.

Table 3.—Number of Operating Local School Systems for the United States

Enrollment grouping	1962-64[a]	1961-62 Census[b]	1964[c]
1	2	3	4
Total operating systems	29,108[d]	30,994	25,991
25,000 or more	135	132	146
12,000-24,999	267	266	307
6,000-11,999	697	671	778
3,000-5,999	1,530	1,495	1,608
1,200-2,999	3,354	3,277	3,562
600-1,199	3,125	3,159	3,187
300-599	3,262	3,486	2,641
Less than 300	15,783	18,508	13,762

[a] National Inventory of School Facilities and Personnel, 1962. Updated in 35 states to spring 1964.

[b] U. S. Department of Commerce, Bureau of the Census. Public School Systems in the United States, 1961-62. GC-P3. Washington, D. C.: the Bureau, July 6, 1962. p. 3.

[c] Hobson, Carol Joy. Fall 1964 Statistics of Public Elementary and Secondary Day Schools. Final Report. U. S. Department of Health, Education, and Welfare, Office of Education. Washington, D. C.: Government Printing Office, 1965. p. 6.

[d] Includes reorganization to 827 from 1,839 in Wisconsin and smaller reorganizations in other states.

tricts and the smallest districts have the most school plants without a single general-use facility (see Table 5).

Arrangement of Data by SMSA's

The movement of families in the 1960's will result in greater demands for school facilities in several ways.

Migration within a city changes the composition of city schools and the need for school facilities. Areas with middle-class families send a portion of the pupils to nonpublic schools. When poorer families take over an area, the enrollments increase because (a) a larger proportion attends public schools, (b) the number of children is larger in the newer families, and (c) more families live in a dwelling.

Migration to suburban areas will increase the number of pupils from 12.7 million (1962) to 16.8 million by 1970 in school districts with school construction funds already lagging behind needs (see Table 6).

The new education act, PL 89-10, will provide funds for reducing pupil-instructional staff ratios without instructional space. For example: City schools with 35 pupils per room at a $400 state expenditure per pupil will be able to receive $200 per eligible pupil under the new Act. If 25 were eligible, this would be $5,000 or enough for hiring a new teacher. The problem will be to find a teaching space to provide more effective education by reducing the teaching time per pupil.

The increased emphasis on preschool education of 3-, 4-, and 5-year-olds will add considerably to the need for additional school construction.

In four days a coding system was devised and tables provided from the Inventory to indicate the problems in the Standard Metropolitan Statistical Areas. These SMSA's are designated by the Office of Statistical Standards of the Bureau of the Budget. This study separated (a) the central city or cities, i.e., Detroit, Pontiac, Dearborn; (b) the fringe areas outside the SMSA's; and (c) the areas outside the SMSA's in each state. The need for new classrooms is summarized below for the nation:

Table 4.—Number of Pupils in Operating Local School Systems for the United States

Enrollment grouping	Fall 1963,[a] OE	1962-63,[b] OE Inventory	1962[c] Census
1	2	3	4
Total	40,217,215	37,497,767	37,800,000
25,000 or more	11,044,000	9,984,356	9,947,000
12,000-24,999	4,995,400	4,277,767	4,321,000
6,000-11,999	6,320,700	5,677,830	5,542,000
3,000-5,999	6,631,200	6,327,983	6,266,000
1,200-2,999	6,647,700	6,158,472	6,239,000
600-1,199	2,584,900	2,570,367	2,703,000
300-599	1,051,040	1,392,482	1,505,000
100-299	936,275	1,108,510	1,173,000

[a] U. S. Department of Health, Education, and Welfare, Office of Education. Education Directory, 1964-1965: Part 2, Public School Systems. Washington, D. C.: Government Printing Office, 1965. 232 p.

[b] National Inventory of School Facilities and Personnel, 1962. Updated in 35 states to spring 1964.

[c] U. S. Department of Commerce Bureau of the Census. Public School Systems in the United States, 1961-62. GC-P3. Washington, D. C.: the Bureau, July 6, 1962. p. 9.

Table 5.—Number of School Buildings and Percent Constructed Before 1920, Number of Libraries and School Plants without General-Use Facilities, by Size of Operating Local School Systems for the United States, 1962-63

Enrollment grouping	School buildings constructed before 1920		Number of libraries	School plants with no general-use facilities
	Number	Percent		
1	2	3	4	5
U. S.	29,175	16.8%	48,031	19,623
25,000 or more	4,363	15.8	8,722	790
12,000-24,999	1,935	12.5	4,602	938
6,000-11,999	2,417	10.4	6,533	1,602
3,000-5,999	3,434	12.3	7,955	2,655
1,200-2,999	4,607	15.8	8,477	2,722
600-1,199	2,405	15.6	4,391	1,065
300-599	1,738	15.7	3,129	632
Less than 300	8,276	35.9	4,222	9,219

Source:
National Inventory of School Facilities and Personnel 1962 updated in 35 states to spring 1964.

	Pupils in rooms of 30 or more	
	Number	*Percent*
Urban	4,270,245	42.4%
Suburban	2,944,321	24.9
Outside SMSA's	3,155,227	22.5
Total	10,369,793	28.9%

The pupil-room ratio provides a simple device for computing the number of rooms needed to relieve any given level of crowding. By illustratively defining a particular pupil-room ratio, such as 30, to be the point at which overcrowding begins, one can compute the number of additional rooms needed to reduce the pupil-room ratio to this level. This method produces comparable data, by a specified, common measure from place to place, but it makes no allowance for differences in local practices and standards:

Pupils per room	*Additional rooms needed*
30, elementary and 30, secondary	65,970
27.6, elementary and 26.3, secondary	117,409
25, elementary and 20, secondary	271,871

Further insight can be supplied by repeating the computations with another pupil-room ratio as the point of overcrowding. In this report three different levels are used—pupil-room ratios of 30 for elementary and secondary pupils; the 1962 median computed from the National Inventory which is 27.6 for elementary and 26.3 for secondary; and a pupil-room ratio of 25 for elementary- and 20 for secondary-school pupils. The second level based on the median ratios, actually observed, represents a norm derived from operating practice.

This computation does not include any replacement of makeshift, nonpermanent, or off-site rooms. These rooms are counted as available for use in determining the pupil-room ratio at a school plant under operating conditions.

The latest study in the Office of Education utilizes this concept of common or uniform measures of pupil-room accommodations, includes appraisals from *local school officials,* and reports the use of improvised arrangements such as makeshift, nonpermanent, and off-site rooms.

This concept of pupil-accommodations may be utilized with SMSA reports; room needs based on the original 1962 data (median of 27.6 pupils elementary and 26.3 pupils secondary) updated in 35 states to 1964 are as follows:

	Additional rooms needed
Urban	51,078
Suburban	30,177
Other	34,043
Total	115,298

Staff Needs

The same principle of uniform or common measures explained in preparing room needs was used to provide a base measure for staff needs, as shown below:

Pupils per teacher	*Additional staff members needed*
25 elementary and 20 secondary	143,742
27.2 elementary and 21.9 secondary	72,076
30 elementary and 30 secondary	18,216

This justifies the selection of 25 and 30 for the optimal ratios, since the median ratios are just a few pupils larger than the optimal ratios 27.2 for elementary and 21.9 for secondary.

Listings of Schools by School District

Listings of the approximately 100,000 schools in all school districts reported in the Inventory were prepared for each state on preprinted description sheets. Listings of the 17,000 schools that are nonpublic, or under the supervision of the Department of Defense and the Bureau of Indian Affairs were also prepared for the states.

Other Uses of the Inventory

The Department of Commerce, Areas Redevelopment Administration, utilized the school data summaries by county to develop criteria for project selection and assistance funds for welfare and education.

The inventory provides a good start on establishing universes of public schools, nonpublic schools, and school districts.

It can be used to determine mutual completeness of coverage between the Inventory and other surveys, such as the staff study now under way in the Office of Education, and the Directory of Public School Systems with more than 300 pupils.

Sampling

Sampling designs based on schools or school plant are a welcomed relief to the 143 large city systems that almost always are required to report 1 for 1 in samplings of school systems. Each of the large systems has hundreds of schools, and reports from each one are a tremendously large work task. The physical fitness study for the President's Council on Physical Fitness utilized a 27-cell selection technique that required only 2,820 schools to provide

Table 6.—Public-School Enrollment by SMSA, Urban, Suburban, and Areas Outside SMSA's for the United States, 1962, 1964, and 1970

Date	Total U. S.[a]	SMSA	SMSA		Outside SMSA
			Urban	Suburban	
1	2	3	4	5	6
April 1962	38,700,000	23,500,000	10,800,000	12,700,000	15,200,000
October 1964	41,400,000	25,689,000	11,587,000	14,102,000	15,815,000
October 1970	44,800,000	28,929,000	12,067,000	16,862,000	15,868,613

[a] Figures do not add because of rounding.

results on (a) public, church-related, and private schools; (b) small, medium, and large schools, and (c) elementary, secondary, and combined schools. The Office of Education obtained a 93-percent return and prepared the tabulations in less than three months from the mail out of forms to the press release of tabulations by the President.

A study of guidance and a study of handicapped children have used the Inventory as a sampling base. The newest study of the adequacy of school facilities conducted by the Office of Education in 1964-65 has utilized several techniques developed from the Inventory: (a) the overcrowding measures mentioned in conjunction with this article; (b) the objectivity of reporting, i.e., the number of rooms in buildings constructed before 1920, or number of combustible, or both; (c) the sampling base for selecting school plants in each state; (d) several preprinted items to relieve respondents of tireless repetitive responses, and (e) a control check for sampling results.

In conclusion, one must pause a moment to reflect after viewing the accomplishments from this survey. Special thanks are in order to the staff in the Office of Education for over-all planning and for conducting the survey. The Office of Civil Defense provided an incentive and some welcomed financial assistance. Hundreds of persons in state educational agencies prepared the mailings and reviewed the forms for consistency in a quick 4-month period. Thousands of local-school officials from public and nonpublic schools contributed their time and knowledge of facilities to make the Inventory possible. To each the sincerest gratitude and appreciation is extended. Their efforts have contributed to one of the most extensive recordings of the status of school facilities and thereby to a better understanding of a vital national resource, public and nonpublic school facilities, pupils, and personnel.

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Roster of Participants

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